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SOME OF THE SOCIAL PROBLEMS OF MEDICINE *

WILLIAM ALLEN PUSEY, M.D.

CHICAGO

My wife has a saying, that the other side of the street is always the cleanest—meaning thereby to illustrate the fact that we are less acutely conscious of difficulties at a distance than we are of those directly under our feet. This is true of other things besides sidewalks. The freedom from cares of youth, the good old times, the ease of life of other days, the extraordinary anxieties of our intense civilization, the perfection of our heroes, whether they are separated from us by time or distance—provided only they are separated from us; these are common illustrations of the kind illusions that distance effects. Most of us have a feeling that we have more than our share of difficulties.

And so it is with medicine. As a matter of fact, of course, medicine—like every other activity of civilized life—has always had its problems. It is perhaps true, therefore, that the difficulties that confront us in medicine now are no more perplexing than those which our ancestors have also battled with—and battled with, for the most part, with success.

THE SOCIAL REVOLUTION

It is nevertheless true that medicine, as a part of the present social organization, is passing through a time of extraordinarily rapid change; that important problems, which are in large part new problems, are pressing on us, and that, if medicine is to escape serious and damaging mistakes, it must consider these problems with deliberation, imagination and wisdom. If it is to steer a proper course over the changing social sea, even during the next generation, it must give wise consideration to the present trend of society. For the social organization, all observers agree, is undergoing an actual revolution. And medicine is going with it.

This government of ours was organized in a spirit of individualism. Given equal opportunity, men were expected to work out their own lives through industry, intelligence and character. Competition was allowed to exercise its wholesome influence in stimulating men in their worldly efforts. It was the acceptance, unconsciously, of the law of the survival of the fittest, long before Darwin had formulated that concrete conception and given it a name.

Now we have a new dispensation. During the last hundred years, the social trend has been continuously away from this spirit. It was inevitable that it should be so; our world has been transformed in that time by mechanical invention. As Robinson says, in that extraordinary book "The Mind in the Making":

> There are more numerous, deeper and wider reaching contrasts between the world today and that of a hundred or even fifty years ago, than have developed in any corresponding lapse of time since the beginning of civilization.

And as Kipling puts it:

> The past years have so immensely quickened and emphasized all means of communication . . . that our world . . . is not merely "too much with us," but moves, shouts, and moralizes about our bath and our bed through every hour of our days and nights.

This revolution has placed men in new relations to one another and has made them dependent on one another, because of the intimacy of their contacts, in a way that never existed before. The danger in this situation is that the necessity for social cooperation tends to break down individualism and to encourage the less vigorous to look to society to do for them what it would be good for them to do for themselves.

And so the trend has been continuously from individualism to socialism. As the social problems have become more acute, this trend has been more rapid. The views that were socialistic at the beginning of the nineteenth century had become the views of the individualists by the middle of the century. Doctrines that Herbert Spencer was thundering against, with cold logic, as socialistic and dangerous, a little over fifty years ago, are now accepted without protest as an inevitable part of the social situation. This is not because Spencer's premises and logic were incorrect—it is not unlikely that in our ultimate experience it will be found that he was correct—but it is because necessity grasps at expedients; and social remedies that Spencer rejected have been utilized, for the practical reason that society had to take care of its rapidly developing situations and it found no other remedies at hand. This socialistic trend has been most rapid in the last twenty years. Hadley, for example, writing of it in 1914, says:

> During the last decade the United States has witnessed a movement in the direction of State Socialism . . . very different in character from anything which occurred in the century preceding.

How far this trend is going before it is checked, no one can prophesy; but it is clear that our civilization is committed to a sort of socialism, to the effect that the economically fit and competent shall take care of the weak and inefficient. It is an unconscious endeavor to set aside the law of natural selection and to counteract Nature's cruel but salutary process of eliminating the unfit. So far as the present social endeavor can be successful, it will tend to foster—to borrow Faguet's

* President's address, read before the American Medical Association at the Seventy-Fifth Annual Session, Chicago, June, 1924.

striking phrase—"the cult of incompetence." The tendency is to foster mediocrity at the expense of competence. This tendency is certainly humane; whether it is best for the future of man is another question. That will be determined by the future experience of the present cycle of civilization.

Of this social revolution, medicine is a part. Medicine is, in fact, particularly exposed to the dangers of socialization, because the projects of socialism that obtain the first acceptance are those that have to do with health and physical welfare. There is an evident tendency now to appropriate medicine in the social movement; to make the treatment of the sick a function of society as a whole; to take it away from the individual's responsibilities and to transfer it to the state; to turn it over to organized movements. If this movement should prevail to its logical limits, medicine would cease to be a liberal profession and would degenerate into a guild of dependent employees.

Now, this is a gloomy picture for a celebration, but, to paraphrase a statement of Birrell's, it is better to entertain a gloomy fact than a cheerful fiction.

THE INEVITABLE REACTION

And there is another side to this picture. There are influences which will in time, probably, first check the socialistic trend and then cause a reaction. Probably this will come only after sad experience and at high cost; but society gets on only with such penalties

In the first place, the effects of a natural law, such as that of the survival of the fittest, cannot be greatly modified nor long set aside by the puny efforts of man.

In the next place, the machinery for all these socialistic and paternalistic enterprises will in time become so large and unwieldy that it will be impractical and fall to pieces. When, in addition to the ordinary machinery of government, we add the new machinery for running the mines and the railroads and the telegraph and the telephone and the wireless, for the regulation of capital and industry, for the stabilization of industry, for employment insurance and health insurance, for old age pensions, for socialized recreations and socialized neighborliness, for socialized health education and programs—when on top of these you pile the organizations for keeping the people from using opium and cocain and alcohol and doing other things that are not good for them, for enforcing all sorts of laws that prohibit some of the population from doing things that another part thinks are wicked, for socialized nursing and medical care, for taking over obstetrics, child welfare and venereal diseases, for the care of the injured, crippled and defective—when these activities, nearly all of them temporarily good in themselves, have developed to a certain point, the burden will become too great. The men taken from productive occupation and private enterprise that will be required to man them will be such a large proportion of the population that, sooner or later, the social fabric will give way. There will not be enough of the population left for production to take care of the administrators; and a reaction, if not a crash, will come.

This is no imaginary situation. Attention is constantly being called to it. As Beveridge points out, even now there is one government employee for every twenty-one adults and, according to the National Industrial Conference Board, every eleven workers over 16 years of age support one government employee. In view of his wise statesmanship, it is not surprising, but it is a reason for encouragement, that President Coolidge has opposed this trend in his definite stand against federal support of such activities.

POWER OF AN ENLIGHTENED MINORITY

In the next place, and most hopeful of all, society is usually saved from its own carelessness—except when a cataclysm occurs—by the persistence of a minority element which, through character, intelligence and force, is able ultimately to exercise a controlling hand in the direction of affairs. If civilization is to be saved from the effects of a socialized mediocrity, it will be by the presence in the community of this influential minority.

How shall we in medicine oppose this destructive social trend? By making ourselves, in the first place, a part of the enlightened minority that is the salvation of democratic government—that leaven which has caused the gradual advancement of mankind; next, by making our standard sound public policy; by being alert to the socialistic dangers to medicine and by aggressively opposing them; by opposing, as vigorously as can be done, the various governmental projects for practicing medicine, and the efforts of organizations, public and private, including medical schools and hospitals, to go into the practice of medicine as a business. These things are already being done. They are fundamentally wrong; they are throwing to the winds the sound traditions of medicine that have developed from long experience and that from experience have been found to be essential to medicine's character and progress. The profession should bring all the forces of its influence to their opposition. It might well adopt as its motto here the words of Tennyson's Ulysses: ". . . Strong in will, to strive, to seek, to find and not to yield."

These are but examples of how we can oppose the socializing trend in medicine. The essential thing is to be alive to these dangers and consistenly to oppose movements that are unsound, regardless of their temporarily seductive character; for, as Spencer says, "If amid all those compromises which the circumstances of the time necessitates, or are thought to necessitate . . . if nothing beyond the exigencies of the moment are attended to, and the proximately best is habitually identified with the ultimately best, there can be no true progress."

It is, to take Spencer's phrases, the acceptance of proximately best measures, instead of following the sounder, harder course of working for the ultimately best measures for society, that is the danger to medicine, because it leads to medical socialism. The tendency has already resulted practically in medical socialism for the middle classes of Europe, and in doing so it has brought about a situation that is neither sufficient nor satisfactory for the public or the medical profession.

If we accept without prudent foresight expedients to meet temporary difficulties, such as the Sheppard-Towner Act, medical service will soon be in the same situation in this country. It is not for the good of the people of the country that they should be spoon-fed in the matter of taking care of their physical ills any more than in any other matter in which they should take care of themselves.

LIMITATION OF POPULATION

There are two problems that are corollaries of these socialistic tendencies of society which a small group of social pioneers—and some faddists—have long been emphasizing, and in which leadership should be looked for in medicine. Thus far, however, medicine has made little effort to take a position in them that justifies leadership. These subjects are limitation of population by birth control and improvement of the race by breeding.

In our own time, one of the critical facts in man's history has occurred. He has now covered the desirable parts of the earth. Until now, men have always had new hospitable territory over which they could spread when population became too dense. In the words of Turner: "Never again will such an opportunity come to the sons of men." There is no longer a frontier.

To consider only our own country: Our future population must make its support out of territory that is now occupied. Starting with a population of 5,000,000 people in 1800, the United States has in a hundred and twenty years passed 100,000,000. Nor is this remarkable increase peculiar to the United States. It is a world phenomenon. In the last hundred and twenty years there has occurred a greater increase in the world's population than in all the preceding tens of thousands of years. Within the span of life of children now living, our population will reach 175,000,000. With that density of population, the pressure of existence will become so strong that the death rate—particularly infant mortality—will overtake the birth rate, and the population will gradually become stationary. If no effort is made at birth control, Nature will take charge of the situation by eliminating those least able to resist. When this condition of saturation arrives, the humane plans of socialistic altruism of today will be wrecked in the struggle by society for mere existence.

As has been repeatedly pointed out, those people inherit the earth who multiply most rapidly; and, unfortunately, fecundity tends to increase inversely according to the social scale. Society will, and should, make every effort to do its best for its weaker members, but there is no good reason why it should not try to stem the tendency to the peopling of the earth by the defective, the unfit and the incompetent.

If these United States, if indeed, modern Christian civilization, is not to go down ultimately to the misery and degradation of the overpopulated countries of Asia, some cognizance must be taken of these facts, and serious effort made to control them. It is partly a matter of birth control and partly a matter of breeding. But the preponderant increase of the least fit part of society is the factor of the highest importance.

I particularly desire that the mistaken impression should not go out that I mean to say that medicine now has any satisfactory program for birth control. It has not. The point I am undertaking to emphasize is that the subject is of vast importance to the welfare of man; that it is one which should have scientific guidance; that for this medicine must be looked to and that medicine should undertake to approach its responsibilities here by beginning to give the subject the continuous and serious thought that it justifies.

IMPROVEMENT OF RACE BY BREEDING

The chief concern of present-day eugenics seems to be the effort to eliminate hereditary disease. As a matter of fact, that is its least important function. The predisposition to disease by inheriting a physical body that is not vigorous is a common fact, but the actual inheritance of disease, as such, is a relatively unimportant social matter. The only great disease in which this occurs is syphilis, and the actual amount of hereditary syphilis that exists is infinitesimal compared with the total amount even of that disease. The real problems of eugenics are those of breeding to improve the physical and mental and moral qualities of the race. We know, thanks to the works of Mendel, the workings of many of the laws of heredity. Maud Slye, one of our own countrywomen, has shown that the effects of heredity can be foreseen and controlled with scientific definiteness by breeding. There is no doubt that the same laws could be applied successfully in the breeding of man. MacKay, in an exalted passage, in an otherwise singularly precise book, "The Happiness of Nations," has shown the ultimate that might be expected were it possible that the breeding of men could be improved to the limit of possibilities that we can even now see. No practical man believes that scientific breeding can ever be applied to man as it can be to animals, but we may at least hope that, in time, society will give more than casual consideration to the possibilities of improving men by wiser breeding.

The first step, and the only practical step at present, is the negative one of taking measures to prevent the increase of those who are socially hopeless defectives; the importance of this should have continuous emphasis. The first constructive step that could be taken would be to make some serious, persistent effort to encourage the mating of those individuals who are manifestly most fit. Society's methods here now could hardly be more haphazard. Marriage is largely a matter of propinquity, or economic or social consideration.

It would be a courageous man—and he ought to be a wise one—who would undertake to offer a social plan now for the improvement of human mating. I certainly am no seventh son of a seventh son. But the possibilities of wiser breeding are so great, and the holding down of the progress of man by our present course constitutes such a handicap, that it is hardly to be doubted, if men are ever able to see the vision, that they will make a serious effort to fulfil it. If there is to be effective leadership in this field, medicine must take part in it.

PRESENT PROBLEMS

The foregoing problems especially need emphasis because they are, in a way, problems of the future, and for that reason are neglected. Many of medicine's problems of the present day are equally bound up with the social welfare, but these are having constant emphasis and need no lengthy statement here. Because of their importance and difficulty, one sort of these problems may be briefly referred to. These are the problems involved in the education of the public in medicine and in regard to medical frauds and fanaticism.

The education of the public in medicine is a long way from complete, but it is being faithfully undertaken by scores of agencies. The audience is for the most part receptive—not to say eager—and the difficulties, as far as the intelligent public is concerned, are chiefly those of the size of the task and the complexities of the subject. The hardest problem, because of the ignorance or the mental vagaries of the groups that must be reached, is that of educating the public concerning medical frauds and cults.

Apparently, we have found the successful way of meeting the problem of medical frauds. A few years ago, it seemed impossible to check the quack doctor, the "patent medicine" man and that "patent medicine" man for the medical profession—the proprietary medicine man; and yet, in twenty years, they have been converted from prosperous, callous, impudent aggressors to defensive weaklings. The method of meeting them has been an aggressive policy of disclosing their fraudulent character and of educating the intelligent public. In this work we have had the self-sacrificing cooperation of the enlightened public press. But the crusade was begun and has been largely conducted by the American

Medical Association under the leadership of that sturdy fighter of dishonesty, Dr. George H. Simmons of THE JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION. We should not forget, too, the support of his two able coadjutors in the department of pharmacy and chemistry, Dr. Arthur J. Cramp and Dr. W. A. Puckner. These results should make us optimistic as to what can be done in other directions.

We have much the same sort of situation to meet in the problem of our responsibilities to the people in regard to cults. But here we come in contact, as a rule, not with rascals, but with fanatics and faddists.

These cults may be divided broadly into two groups:

1. Those that oppose medical research and progress and deny the established facts of medicine.

2. Those that run after vagaries and seductive medical theories.

The antivivisectionists and the antivaccinationists are the prototypes of the first group.

The cults in the second group are based on emotions and pseudoscientific dogmas. These cults come and go. One is likely to feel toward them like the motorist who said that there is no use to pass a Ford because there is always another just ahead. They do not constitute a large proportion of society but, like the Scotchman's devil, they make up for inferiority of strength by superiority of activity.

Their devotees are often sincere emotionalists and dogmatists. There are good people—intelligent in the ordinary affairs of life and cultured in a superficial sense—who would stop medical research and progress, who believe that, by taking thought, or not taking thought, or ignoring—it is hard for the ordinary man to describe their mental processes—one can counteract the effects of disease and injury, not to say abolish them. Now, there is no common ground in these matters for the cultist and for the intelligent man who meets the hard facts of the world face to face. They should not simply be damned. It is an unwholesome type of mind that has no credulity and, as Robinson says, "We must, after all, come to terms in some way with the emotions underlying mysticism."

These cultists present a difficult problem, but it is a problem that we have to meet. They are not harmless idealists; in many of their activities they are the enemies of the physical welfare of man and beast.

There is evidence that the intelligent public is coming to realize that it should not be the burden of medicine alone to fight the cultists who oppose scientific medical progress. The formation of the society known as the Friends of Medical Progress, under the leadership of such men as Ex-President Eliot of Harvard, President Angell of Yale, Bishop Mann of Pittsburgh, Cardinal O'Connell of Boston and President Pendleton of Wellesley College, indicates a trend of intelligence and a sense of responsibility in this field that should be a source of encouragement to all well-wishers for the health of men.

In order that it may not be thought that we are unaware of the fact that the medical profession is not above criticism and that there are fads in our own ranks, may I delay long enough to say that we know there is need of education of many members of our own profession against unscientific and sensational medical theories and methods. One of the greatest difficulties of the physician is to sift the chaff from the wheat of new medical knowledge. Undoubtedly, one of the wisest things he can do in this connection is to remember the aphorism of Hippocrates that "experience is fallacious and judgment difficult." As for the layman, he will do well to accept as a motto for himself, in regard to new medical methods, a variation of Pope's line to the effect, "Be not the first *on* whom the new are tried."

And, in our social relations, we do not stand simply in the smug position of teachers and leaders in medical affairs. We have some obligations that are as commonplace as simple obedience to laws that pertain especially to us. Our burdens in this respect have been increasing gradually for years. Now the nation is going in for restrictive medical legislation, and new obligations are coming on us. We are trustees controlling the medicinal use of narcotics and alcohol, and the obligation put on us is peculiarly one of honor. It is not a question of the advisability of these laws or of their irritating and burdensome restrictions. It is not a question of wet or dry. It is more even than a matter of obedience to law. We are put on honor in utilizing the privileges that are given us in the prescribing of narcotics and alcohol. It is a weak man, or a dishonest one, who, when he realizes the pecuilar character of his obligations, under these laws, will hold them lightly.

THE GREATEST PROBLEM OF ALL

But, after all is said about the other problems and responsibilities of medicine, the greatest of these is the old homely one of treating men that are sick and injured. We hear so much now about preventive medicine, about medicine's new social responsibilities, that this old responsibility is failing to stand out in proper proportions. Prevention is an important function of medicine, and will doubtless become more so; but it is altogether likely that it will never be its chief function. We would like to see the day when physicians were not needed, but it can be confidently predicted that no such happy day will ever come. Sickness and injury will inevitably remain part of the lot of man. Carry our discoveries to the utmost limit, man is still a machine that will get out of order, will be injured and will ultimately wear out. As long as that is true, there will be need for the personal physician to take care of the individual patient. For this service, thousands of physicians will be needed where hundreds can be usefully employed in research and preventive medicine. These are the men on the firing line; the battle for the relief of suffering depends on them. And the efforts of society, as of this Association, should be dedicated to the welfare, and development in training and character, of these men, engaged in the workaday duties of caring for the sick, wherever they are scattered over the face of the earth. To foster the competence of these men is the greatest social responsibility of medicine.

7 West Madison Street.

Estimation of Sulphur in Arsphenamin.—A method is described by E. Elvove for determining total sulphur in neoarsphenamin and sulpharsphenamin which depends on the oxidation of the sample by means of potassium permanganate and hydrochloric acid. The results obtained by this method agreed closely with those obtained by the sodium peroxid method. In addition to the advantage that it is more suitable than either the Carius or sodium peroxid method as a routine method for the simultaneous determination of total sulphur in a comparatively large number of samples, this method apparently has also the advantage that the required treatment of the sample is closely similar to that which is used in connection with the routine determination of arsenic, so that the same treatment prepares the sample for both the total sulphur and arsenic determinations.—*Pub. Health Rep.* **39**:754 (April 11) 1924.

THE DERMATOSES DUE TO COSMETICS *

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CLEVELAND

The use of cosmetics has become, unfortunately, more and more common. What was once considered poor form is now the mode with the average woman, certainly in the cities. Most women paint; all of them use powders of different types, and if one were to read over the list of all the different cosmetics it would be indeed startling. Statistics recently furnished by the Cleveland Public Library show that the general use of cosmetics has reached such proportions that, in 1919-1920, on the basis of taxes paid, there were some $205,000,000 worth of these preparations sold; and the Department of Commerce tells us that, in 1921, $75,000,000 worth were manufactured—at what price they were sold one can only venture a guess. We say that the average woman uses at least some of the long list of cosmetics, and yet many of these women are unaware of the danger they are running from such use.

Consider for a moment the different types of poisonous preparations that go into the manufacture of far too many of these preparations—lead, mercury, bismuth, arsenic, compounds of silver, salicylic acid, resorcinol, phenol bodies, pyrogallic acid, nitric acid, calcium, barium, wood alcohol and, last but not least, paraphenylendiamin. If the public were conversant with these facts, how long would it take for the sales to drop enormously?

LEAD

Take the first one of these poisonous metals mentioned, lead. I have recently seen a woman with an extensive, diffuse inflammation of the head, face, ears and neck, the eyes being swollen shut. On close questioning, she admitted that she had recently had her hair dyed in a reputable beauty parlor. Analysis of the nostrum used showed that it contained 23 per cent. of lead acetate. A chemist working for the Connecticut Department of Agriculture, reporting a like poisoning from the same nostrum, said, "A person who wishes to ruin his hair can hardly adopt a more certain means of doing so than to use a preparation containing lead acetate." The American Medical Association recently reported that, from another one of these nostrum hair dyes of this type containing lead acetate, a case of lead neuritis and two cases of dermatitis of the forehead, neck and face have been reported.

But this dangerous metal is not employed only in hair dyes. Lead is sometimes a constituent of face enamels and creams, to give then a softening feel. Woltman reports a severe case of lead poisoning from the twelve years' use of "Owl Enamel Cream," the patient showing a lead line on the gums, pigmentation under the nails, and a bad bilateral wrist-drop. The patient had pains in the arms and legs, vomited, and was unable to walk.

Lead also enters into the composition of certain face powders, a good example being lead carbonate, often called "flake white," a cheap face powder made of finely ground lead carbonate. This preparation has been guilty of numerous cases of lead intoxication. Robinson reports two of these cases showing wrist-drop, muscle atrophy, a lead line on the teeth and paralysis. One of these patients, on account of abdominal cramps, had been operated on for appendicitis. It was found that she had used "flake white" since childhood. Recently, in substantiation, Barron and Habbin of Minneapolis reported one case of nonfatal lead poisoning; and, in another report, one case of frank, fatal lead poisoning and three other cases of fatal poisoning in the same family, in which the presumptive evidence was so strong as to justify the conclusion that all five cases were due to the use of a lead-containing cosmetic that is being sold in most drug stores under the name of "flake white." Holland, of the Kentucky board of health, says that "flake white" (lead carbonate), as a cosmetic face powder, has been the cause of every form of lead poisoning known to medical science. I wonder how many other cases of lead poisoning should be laid to questionable face powders that have not been reported or, possibly, have not been correctly diagnosed.

USE OF MERCURY

Mercury is another one of the dangerous metals used in the manufacture of cosmetics. We find it employed variously—sometimes in hair dyes, like lead, but more often in face creams and skin bleaches. In Cleveland, the city chemist reports to me, there are two well known skin bleaches on the market, one containing 33 per cent. of ammoniated mercury (white precipitate) and the other 50 per cent. They surely should be strong enough to bleach any skin, whether delicate or toughened by many a rouging.

The American Medical Association Laboratory reports that in its analyses of bleaches and freckle lotions it has found mercuric chlorid in solution as high as 1:200, 28.2:1,000, 16.5:1,000 and 4:1,000. When one stops to consider that mercuric chlorid in 1:1,000 solution is an efficient antiseptic, it can be readily seen what danger an uneducated woman must be running in using a bleach in such a high percentage as 1:200. Mercury in the form of calomel also enters into the manufacture of certain toilet creams. It is added to give them a softening feel. We have recently seen a patient who consulted us for a peculiar, bluish discoloration of the skin of the face. The condition was of long standing. Being conversant with Goeckerman's two cases, in which there was deposition of pigment in the skin from the use of a toilet cream containing calomel, we had the patient's toilet cream analyzed, and it also was found to contain a calomel constituent. The metal bismuth enters more often into the preparation of so-called rice powders. As long ago as 1884, Tuttle reported having seen five cases of poisoning from a cosmetic containing an insoluble preparation of bismuth, the patient showing symptoms of clamminess of the skin, nausea and spasms. The question may be asked: Why the presence of bismuth in rice powder? As is well known, most of the so-called rice powders recommended for the face by the beauty specialists contain little or no rice. La Wall, chemist for the Food and Dairy Commission of Pennsylvania, in sixteen examinations of so-called rice powders, found only two to be pure. Six contained some rice, and the rest, talc, cornstarch, zinc oxid, chalk and bismuth subnitrate.

ARSENIC AND OTHER DANGEROUS DRUGS

One would not imagine that such a dangerous drug as arsenic would find a place in any cosmetic. Recently, we saw a young man who came to us because of a

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* Chairman's address, read before the Section on Dermatology and Syphilology at the Seventy-Fifth Annual Session of the American Medical Association, Chicago, June, 1924.

puzzling, scaly dermatitis of the face, neck and ears, along with edema about the eyes. The first time we saw him, the process was classified as an industrial dermatitis, and he was laid off from work. However, the dermatitis flared up before he returned to work; and careful questioning then revealed the fact of the irregular use of a new hair tonic. Examination of this preparation by the Cleveland city chemist showed arsenous oxid, 1.06 grains (0.068 gm.), to the fluidounce.

Several others of the drugs mentioned above enter especially into the manufacture of hair tonics; for example, salicylic acid, resorcinol and phenol bodies. For some patients they seem to have no especially bad effect; but, a short time ago, we had a patient confined to the hospital for over two months with a generalized dermatitis exfoliativa—almost fatal in character. This patient gave a straight history of the use of a well advertised hair tonic, which the barber had applied once to the scalp. Because of the fact that the condition became worse following the application, he went back and had another on the theory that it was bringing out the offending disease. This application almost resulted fatally. Analysis revealed that the preparation contained salicylic acid, menthol and phenol bodies—presumably resorcinol.

While on the subject of hair tonics, it might not be amiss to bring up the subject of wood alcohol, which too often enters into their manufacture—as well as that of bay rum and like toilet waters. I have no personal experience; but Wilbur of the United States Public Health Service tells us that Barnard, while working in the agricultural department of Indiana, found seven preparations of patent hair tonics containing wood alcohol; and Newcomb, in sixty-six toilet preparations, found only forty-six to be free from this deadly poison. As physicians, we refuse to supplant grain alcohol by wood alcohol in our offices for antiseptic washes; we refuse the use of wood alcohol for rubbing our patients; yet any young girl or woman may walk into a store and purchase a toilet lotion which in perhaps 33 per cent. of the cases will have wood alcohol as its base.

Silver compounds and pyrogallic acid enter mostly into the manufacture of hair dyes. They may endanger the patient in the same way as lead or mercury. They are to be condemned. They would not be safe for hair dyes even if an expert physician attempted to employ them.

The metals calcium and barium are employed in the manufacture of depilatories. The public has an idea that they are entirely harmless, and if the average woman does not require them for hair on the face, she will use them for axillary hairs. What dermatologist is there who has not had numberless cases of dermatitis of the face or axillae from their use? Some of these cases are not so severe; but occasionally one sees a very extensive dermatitis. I might also add in this connection that the same applies to the various deodorants widely advertised and used by women.

PARAPHENYLENDIAMIN

And now a word as to the most dangerous drug of them all, paraphenylendiamin. It is not necessary to go into the history and chemistry of this drug, as it has already been fully explained. E. Erdman, who discovered it in 1889, warned against its use in dyes because of its irritating character on human beings. However, because it is so quick in its action, because it is so easily applied, runs a gamut of colors and penetrates deeply into the hair, it is still the common dye used in most cases. France, Germany and Austria have recognized its dangerous character and long ago prohibited its use; but they do not hesitate to manufacture it for export to America, where it is widely used for hair dyes and fur dyes. After coming in contact with the skin, this drug sets up a severe dermatitis, often vesicular in character, and this dermatitis may spread over the entire body, as in two cases I have recently seen in which the patient was poisoned by the use of a hair dye, "Inecto-Rapid."

One peculiar thing about the dermatitis due to this drug is that it is very persistent, often lasting for weeks and weeks. This was first called to our attention by Brocq. Years ago, Prince A. Morrow said that he knew of no other agent which, when applied to the skin, produced such a persistent dermatitis. In dogs, this drug, when injected hypodermically, causes tenesmus, diarrhea, salivation, lowered temperature, opisthotonos, and death; and in human beings, the cases of dermatitis due to its use in dyes are numberless. The American Medical Association, from Feb. 13, 1909, to Sept. 4, 1909, alone, had thirty-two cases of poisoning due to its use reported to it.

The action of paraphenylendiamin as a dye is supposed to be limited to the hair itself, the depth of the color depending on how long the drug is left in contact with the hair before a solution of hydrogen peroxid is applied to stop its action. Thus, a gamut of colors may be produced on the hair, depending on the period of time the paraphenylendiamin is allowed to act. Occasionally, it does not work as desired; and Bunch reports seeing a patient with hair stained a magenta from its use. Again, its action may be even deeper than the skin. In Molliere's case, the urine was a mahogany color. Berger's patient suffered from sleeplessness, dizziness, weakness of the legs, epileptiform attacks, syncope, retrobulbar neuritis and scotoma. Damianos' patient had stomach symptoms, exophthalmos, poor vision and epileptiform convulsions. Gautier reports that there have been several deaths from its use as a hair dye. Should the United States longer hesitate in joining France, Germany and Austria in prohibiting the use of this dangerous dye?

Just recently we have experienced a new use for this dangerous chemical in the form of a dainty little box containing a mirror, a small brush and a black paste, looking like stove enamel, used to stain the eyelashes and the eyebrows, going under the name of "trepine" (Mascara) and containing paraphenylendiamin. Naturally, it set up a very persistent dermatitis of the face, ears, neck and the upper part of the body. There was no word or note of warning with this preparation, which is sold, apparently, far and wide to anybody having the money.

For the last year or so, it has been the mode to employ various widely advertised preparations to sleek down the hair. I have seen numerous cases of mild dermatitis of the face and neck, and occasionally of the hands, from their use. I wonder what has been the experience of other physicians and dermatologists in this connection.

POISONOUS ACTION

Let us now consider how these various cosmetic preparations injure the persons employing them. In the first place, there is the pure mechanical obstruction by creams, powders and rouges employed on the face. The pores in our skin were intended by nature to serve as lubricating and excretory ducts. If these are con-

stantly closed off, the mechanical obstruction alone is bound to injure any skin.

Then we have the specific chemical action, depending, in the first place, on the susceptibility of the patient, and, secondly, on the strength and duration of the application, along with the character of the nostrum applied —for example, mercury, arsenic or paraphenylendiamin. It is well known that if paraphenylendiamin is applied to any head of hair without the use of hydrogen peroxid to check its action, any skin will be irritated more or less severely.

COURSE TO BE PURSUED BY PHYSICIANS

To say that these occurrences are frequent goes without mentioning. Moreover, I believe that all members of this section will join in the assertion that there is a great and alarming increase in the dermatoses due to these various cosmetic preparations. The question is raised: What shall we as a section and as physicians do to alleviate this evil? In the first place, as physicians, all of us, and especially the general practitioner, should warn our patients of the deleterious results and of the dangers arising from the use of patent hair tonics, hair dyes, face powders, creams, etc. This is getting at the source, and will be of inestimable value. Moreover, the American Medical Association has within its power the means of rendering great service to the public in giving warning of the danger from cosmetics. This can be done, first, through the American Medical Association press bulletin, and, secondly, through the admirable journal *Hygeia,* which should be in every American home. No such public spirited enterprise has ever before been offered to the American public.

As a second broad means of combating this evil, we have offered to us the possibility of protecting the public through proper legislation. This should include laws to enforce the placing of the names of all poisonous ingredients on the label. Moreover, laws prohibiting the use of the most harmful types of ingredients in cosmetics would be of great value; and to these there should be added a criminal liability to enforce recognition. And in the United States, as in many foreign countries, there should be a law prohibiting the use of paraphenylendiamin as a dye for hair and furs.

SUMMARY

There seems to be an alarming increase in the use of cosmetics—and along with this a coincident increase in the dangers due to their use. The esthetics of cosmetics are the concern of the physician only secondarily; but we should do everything in our power to call to the attention of the public the damage resulting from their use. The dangers are of two broad types: one, the mechanical obstruction—though not so great, yet not to be minimized—due to the obstruction of the pores in the skin, and, second, the destructive type due to various chemicals and depending on the chemical used, the duration of its application, the area to which it is applied, and the susceptibility of the patient. More energetic action on the part of the medical profession to alleviate and remove this evil is justifiable. This can be done by educating our patients, personally, and by the American Medical Association through the press bureau and through *Hygeia.* Moreover, there should be closer regulation of the sale of cosmetics, either by prohibiting certain more dangerous drugs entirely or by forcing the printing on the label of the names of the harmful constituents. Paraphenylendiamin as a dye for the hair and for furs should be prohibited entirely with heavy penalty. As the section most vitally interested, we believe that these recommendations should be brought to the attention of the Council on Legislation of the American Medical Association.

BILIRUBIN DETERMINATIONS IN THE BLOOD

AS A MEASURE OF LIVER DAMAGE IN TREATMENT WITH ARSPHENAMINS *

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Jaundice is a not infrequent complication of treatment with the arsphenamins. It may exist before treatment as the result of a syphilitic hepatitis: it may develop after the first treatment from a hepatic Herxheimer reaction. It may appear some weeks after a few injections and represent a hepatorecurrence, or it may develop later as a result of the toxic effect of the drug on the liver. In rare cases, the latter may go on to a fatal acute yellow atrophy. We know from laboratory studies as well as from clinical experience that the organ dominantly attacked by the arsphenamins is the liver.

TABLE 1.—*Number of Injections of Neo-Arsphenamin in Patients Receiving Less than Fifteen Injections*

No.	Name	No. of Injections	Bilirubin, Parts per Million	Comment
1	L. D.	7	0.7	
2	H. G.	12	0.7	
3	A. S.	11	2.0	
4	E. C.	5	2.0	
5	Wm. S.	15	0.7	
6	H. T.	14	0.7	
7	A. H.	14	0.7	Intolerance
8	E. S.	15	0.3	
9	M. C.	8	2.0	
10	C. D.	9	0.7	
11	P. L.	5	0.0	
12	L. C.	4	0.0	
13	B. J.	14	0.7	
14	M. H.	4	2.6	
15	F. L.	13	0.7	
16	R. M.	14	1.6	
17	W. M.	4	46.8	Hepatorecidive jaundice
18	Wm. J.	12	1.0	
19	V. J.	4	0.0	
20	H. Di N.	15	156.0	Arsenical jaundice
21	A.	6	0.0	
22	V. S.	1	3.9	Reaction to primary injection
23	L. B.	3	0.0	Pregnant
24	H. C.	2	3.6	
		3	8.2	
		4	7.2	
25	D. W.	9	0.0	
26	G. W.	10	0.0	
27	N. R.	after rest period	0.7	Had toxic hepatitis previously
28	R. C.	2	7.8	Jaundice present

In patients who are receiving a large number of injections of one of the arsphenamins, it would be of value if a test existed that would determine the manner in which the liver was tolerating the drug. As a matter of fact, a valuable method of determining hepatic injury appears to have been developed. Wechselmann and Hoborst [1] state that in latent icterus, and preicteric and subicteric conditions, there is sometimes an increase in bilirubin in the blood serum. This points to previously damaged liver cells which are inefficient and do not bind arsphenamin as they should. These authors believe that arsphenamin has no toxic effect on a healthy

* From the Research Institute of Cutaneous Medicine.

1. Wechselmann and Hoborst: Arch. f. Dermat. u. Syph. **136**: 285, 1921.

liver, but that arsphenamin jaundice usually occurs in hypersensitive subjects and that the condition is often expressed by a preicteric bilirubinemia.

Chargin and Orgel [2] state that, estimating the amount of bilirubin in the blood, it is possible to predict (by noting any rise in bilirubin content) a tendency to jaundice in syphilitic patients under arsenic therapy. (The method employed by these authors did not permit them to determine the actual amount of bilirubin present.)

In order to evaluate the importance of bilirubin determination in the blood, we carried out a series of studies on the blood serum of syphilitic patients receiving repeated injections of the arsphenamins, employing van den Bergh's quantitative test. The results are tabulated according to the number of injections received by the patients. While the aggregate of the patients studied is not large, yet the results are sufficiently suggestive to warrant, we believe, a preliminary report.

TABLE 2.—*Arsphenamin Injections from Fifteen to Twenty-Five*

No.	Name	No. of Doses	Bilirubin, Parts per Million	Comment
1	T. D.	20	5.3	Had had toxic jaundice 3 months before
2	M. C.	18	0.8	
3	M. B.	25	0.0	
4	A. H.	25	0.0	
5	M. J. S...	16	1.3	

TABLE 3.—*Arsphenamin Injections from Twenty-Six to Fifty*

No.	Name	No. of Doses	Bilirubin, Parts per Million
1	A. C.	30	0.7
2	R. T.	45	0.3
3	F. J.	34	3.6
4	M. G.	48	1.0

Of this series of twenty-eight patients, three patients had jaundice and all showed an increased bilirubin content in the blood. Apart from this, nearly all the other cases were normal with the possible exceptions of four patients in whom there was a content of from 2 to 3.9 parts per million. As anything over 2 per million is probably to be regarded as excessive, these cases may represent beginning pathologic change in the liver.

It will be observed that there is no relationship between the number of injections and the amount of bilirubin present.

Table 2 represents patients who received between fifteen and twenty-five injections of an arsenical. Only one patient shows an increase in bilirubin, and this woman had had a toxic jaundice three months previously. We should suspect that the liver was not yet normal.

TABLE 4.—*Arsphenamin Injections Over Fifty*

No.	Name	No. of Doses	Bilirubin, Parts per Million	Comment
1	R. C.	60	0.5	
2	H. B.	51	0.7	
3	S. H.	52	0.0	
4	M. B.	55	1.3	
5	B.	..	0.4	Treated for syphilis 2 hours
6	S.	112	0.7	

2. Chargin, Louis; and Orgel, S. Z.: Jaundice in Syphilitic Persons Receiving Arsenical Medication, Arch. Dermat. & Syph. 7:495 (April) 1923.

In Table 3 are given the results on four patients who received between thirty and forty-eight injections. One of these has an increased bilirubinemia.

In Table 4 are observed the results in six patients who received between fifty-one and 112 arsenical injections. The bilirubin determination in all these patients is normal.

A survey of these tables enables one to state that no relationship exists between the incidence of hyperbilirubinemia and the number of treatments given. In the last group, in which from fifty-one to 112 injections were administered, no patients exhibited excessive bilirubin. These results appear to confirm the observations of Greenbaum, who, working in our clinic on hepatic function with the phenoltetrachlorphthalein test, arrived at similar conclusions.

TABLE 5.—*Reactions to Arsphenamin*

No.	Name	No. of Doses	Bilirubin, Parts per Million	Comment
1	H.	14	3.8	Just recovering from a dermatitis
2	A. H.	14	0.7	Intolerance
3	H. Di N..	15	156.0	Arsenical jaundice
4	N. R.	..	0.7	Has had toxic hepatitis
5	R. C.	2	7.8	Arsenical jaundice
6	V. S.	1	3.9	Reaction to primary injection
7	T. D.	20	3.3	Had toxic jaundice 3 months previously
8	M.	7	81.9	Jaundice and multiple neuritis

High bilirubin determinations are present during jaundice, and some increase is present in many cases after recovery from clinical evidences of jaundice.

In Table 5, the relation of hyperbilirubinemia to jaundice, present and past, is seen. In several patients, other reactions were observed in association with an increase of bilirubin. The question of greatest importance is, Can one foretell an oncoming jaundice by an increased content of biliburin in the blood before actual clinical evidence is present?

Meulengracht [3] asserts that bilirubin has to reach a certain level in the blood serum before it passes into the tissues, and a still higher level before it is eliminated in the urine. Examination for urobilinuria supplements but cannot take the place of an examination for blood bilirubin.

TABLE 6.—*Results of Blood Examinations*

No.	Name	Bilirubin, Parts per Million	Date	Comment
1	R. H.	7.2	1/ 2/24	No evidence of jaundice
2	R. H.	11.7	1/10/24	No evidence of jaundice
3	R. H.	13.0	1/14/24	Clinical signs of jaundice
4	R. H	11.7	1/21/24	Still jaundiced
5	R. H.	3.1	2/28/24	Jaundice gone

The following case sheds light on the query proposed above:

A woman, aged 55, presented herself for advice because of a generalized violent and intolerable itching of the body. (There was no factor of syphilis or arsenotherapy in this case.) Examination of the blood showed a pathologic amount of bilirubin. One week later, the bilirubin had further risen and led us to suspect an impending jaundice. Four days later, another slight increase was evident, and at this time the skin and conjunctivae had a distinct yellowish discoloration. The serial examinations of the blood of this patient are given in Table 6.

The grade of bilirubinemia appears to give some evidence of the rise and decline of hepatic symptoms. The

3. Meulengracht: Ugesk. f. Læger. 81:1785, 1919.

sequential examinations in Table 7 illustrate the parallelism between the amount of bilirubin in the blood and clinical evidence of jaundice.

In Table 8, the rise and decline of bilirubin are shown to be coincident with the evolution and involution of an attack of icterus following the administration of arsenical injections. Within a month, the bilirubin declined from 175 parts per million to the normal.

It would seem, therefore, that liver damage inflicted by the arsphenamins may be predetermined by bilirubin determinations.

Whenever an increase in the blood bilirubin manifests itself it would appear the part of caution, in the light of our present limited knowledge, to interrupt the arsenical treatment; when the bilirubin declines to normal, cautious resumption of the arsenicals, or, better, some other antisyphilitic, may be used.

Table 9 illustrates the subsidence of bilirubin to normal after a rest period.

In judging of the significance of a hyperbilirubinemia in the course of arsenical treatment, it must be realized that an excess of bilirubin may be brought about by other causes. Obstructive catarrhal jaundice, cirrhosis of the liver, pernicious anemia, myocarditis, croupous pneumonia, malaria and typhoid fever are particularly prone to induce a bilirubinemia.

TABLE 7.—*Manner in Which the Course of Jaundice Can Be Followed by Bilirubin Determination (Arsphenamin Patient)*

No.	Name	Bilirubin, Parts per Million	Date	Comment
1	W. D.	156.0	1/24/24	Jaundice present
2	W. D.	117.0	1/28/24	Jaundice present
3	W. D.	84.5	1/31/24	Jaundice present
4	W. D.	21.0	2/ 4/24	Jaundice appreciably decreased
5	W. D.	13.7	2/ 8/24	Jaundice appreciably decreased
6	W. D.	6.5	2/16/24	Jaundice appreciably decreased
7	W. D.	3.5	2/18/24	Jaundice very slight
8	W. D.	1.1	2/21/24	Jaundice very slight
9	W. D.	0.7	2/25/24	Jaundice (clinical) gone

Bernheim [4] contributes an article on the icteric index as an aid in diagnosis and prognosis, employing a colorimetric determination of the blood bilirubin by comparison with a standard solution of potassium dichromate. She concludes that the icteric index is an accurate measure of the degree of bilirubinemia: it is an aid in the diagnosis and prognosis of a number of diseases, and discloses the presence of latent jaundice; it differentiates the hemolytic from the nonhemolytic types of anemia; it shows whether the jaundice is static, increasing or decreasing; it has been found to be high in malaria and still higher in typhoid fever; bilirubinemia is frequently present in cardiac diseases.

METHOD EMPLOYED

The concentration of bilirubin in the blood was determined by van den Bergh's [5] method. Specimens showing a hyperbilirubinemia also gave the direct diazoreaction; the quantitative method, being the indirect diazoreaction, indicates excess of bilirubin due to either obstructive or nonobstructive (hemolytic) jaundice.

In some instances (this condition was specific for the normal values only), an hour or longer was required before a color was produced. In others, as the tables indicate, no color was obtained; in other words, the bilirubin was probably below 0.5 part per million.

4. Bernheim, Alice R.: The Icterus Index, J. A. M. A. **82**: 291 (Jan. 26) 1924.
5. Van den Bergh, A. A. H.: Presse méd. **29**: 441 (June 4) 1921.

CONCLUSIONS

1. The van den Bergh test constitutes a delicate method for the quantitative determination of bilirubin in the blood serum.

2. This test will often disclose pathologic amounts of blood bilirubin before clinical evidences of jaundice are present.

TABLE 8.—*Manner in Which the Ascent and Descent of Jaundice Can Be Followed by Bilirubin Determination (Arsphenamin Patient)*

No.	Name	Bilirubin, Parts per Million	Date	Comment
1	W. M.	46.8	1/24/24	Hepatorecidive; patient with a neglected syphilis who had received four injections of neo-arsphenamin
2	W. M.	84.5	1/31/24	
3	W. M.	130.0	2/ 4/24	Jaundice increasing
4	W. M.	175.5	2/ 7/24	Jaundice increasing
5	W. M.	136.5	2/10/24	
6	W. M.	140.5	2/14/24	
7	W. M.	81.9	2/18/24	Jaundice increasing
8	W. M.	18.9	2/25/24	
9	W. M.	5.9	2/28/24	Slightly jaundiced
10	W. M.	1.6	3/ 3/24	Slightly jaundiced
11	W. M.	1.0	3/ 6/24	Jaundice gone

3. Owing to the vulnerability of the liver to arsphenamin and the not infrequent development of jaundice as a complication, it is suggested that bilirubin determinations be made from time to time in patients receiving arsenical therapy as a guide to the toleration of the drug by the liver.

4. It is believed, that, by this procedure, liver damage may in some cases be averted.

5. There is no relationship between the number of injections of the arsenicals and the incidence of bilirubinemia. Hypersusceptibility, for reasons as yet unexplained, appears to be an important factor.

TABLE 9.—*Subsidence of Bilirubin to Normal After a Rest Period*

No.	Name	Bilirubin, Parts per Million	Date	Comment
1	W. S.	0.7	1/14/24	Received 12 injections of neo-arsphenamin
2	W. S.	1.3	1/24/24	Received 14 injections of neo-arsphenamin
3	W. S.	2.3	1/28/24	Received 15 injections of neo-arsphenamin
4	W. S.	1.0	3/ 6/24	After rest period

6. Bilirubin examinations appear to be valuable in determining when a damaged liver will permit the resumption of treatment and the effect of such treatment on that organ.

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Cause of Epidemic Encephalitis.—Henceforth we shall take for granted that before the breaking out of an encephalitis epidemic, the virus already existed in attenuated form in the saliva and in some common manifestations, such as herpes and herpetic angina. Following a progressive or more or less sudden increase in its pathogenic power, the germ which showed an almost exclusive epitheliotropic affinity has acquired a new property: that of attacking the nervous cells of the mesocephalon (neurotropic affinity). It thus brought on von Economo's disease under its epidemic form, and also thrived in the saliva of germ carriers. The herpes virus, salivary and encephalitic viruses are but mere variations of a single germ inconstant in its pathogenic power. —C. Levaditi.

MERCUROCHROME-220 SOLUBLE INTRAVENOUSLY IN CHRONIC GONORRHEA AND COMPLICATIONS

REPORT OF TEN CASES TREATED AT THE OHIO STATE PENITENTIARY

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Mercurochrome-220 soluble is "the disodium salt of 2:7-dibromo-4-hydroxymercurifluorescein, containing 23 to 24 per cent. of mercury."[1] It is a strong and rapidly acting germicide, originally devised as a potent local antiseptic. Its value as an irrigant in gonococcus urethritis, cystitis and infections of the kidney pelvis has been thoroughly demonstrated. Piper's[2] idea of the intravenous injection of mercurochrome for the purpose of rendering the blood stream bactericidal in puerperal sepsis was a new field for its use, and one of his concluding statements stands forth impressively: "A solution of mercurochrome given, intravenously, in the proper dosage, appears, in some cases, to be of great value and to have no deleterious effects." Later, Young and Hill[3] reported its intravenous use in the treatment of septicemia and local infections. They state that, in two cases, "the results were almost miraculous, the patients being verily snatched from the jaws of death."

The terrible ravages of gonococcal infections in both men and women, with the resultant pathologic effects, and the inadequacy of the usual treatments in vogue, provided stimuli for the idea of some means whereby the total body fluids could be rendered bactericidal to invading gonococci.

With the results obtained in the treatment of general infections by the men mentioned above, there occurred the idea of the intravenous use of mercurochrome-220 soluble in the treatment of chronic gonorrhea.

With this idea in mind, ten patients were placed on intravenous mercurochrome treatments. Five of these had a profuse discharge of pus escaping from the urethra. The remaining five had the characteristic gleet type of discharge. *Diplococcus gonorrhoeae* was demonstrable at some time in all cases under my care, save one, and this one case presented a typical history and symptoms of infection.

Routine treatment consisted of hospitalization during the time of intravenous therapy, physical and kidney functional examination and urinalysis. A saline cathartic was given; this has since been omitted, owing to excretion of the drug in fluids drawn from the body. Food was omitted six hours before and after injection.

The dosage was regulated according to the physical condition and body weight, and was given in gradually ascending amounts, in most cases. The lowest and highest initial doses were 2 and 5 mg. per kilogram of body weight, respectively. The size of the dose, apparently, did not determine the severity of the reaction, which was manifest by chill, nausea, occasional emesis, joint pains and fever. The febrile reaction sometimes mounted to 105 F., but invariably reached its crest by the sixth hour after injection. In none of the ten cases did any inhibiting factor appear save stomatitis, which was usually regarded as a signal for the termination of mercurochrome treatment.

The preparation used was freshly prepared[4] 1 per cent. mercurochrome-220 soluble in distilled water, given with the precaution and procedure usual to intravenous therapy. Two hours after administration, the presence of mercurochrome could be demonstrated in the saliva, tears, blood serum, gastric contents, feces and urine.

Four patients received no previous treatment:

CASE 1.—*Chronic gonorrhea.* A white man, aged 22, admitted to treatment, March 10, 1924, had gonorrhea of sixteen months' duration. There was history of cohabitation with a known infected woman, three times since. There was a profuse discharge, showing myriads of gonococci and staphylococci. The kidney functional test gave 225 c.c., 35 per cent., in two hours. Five doses of mercurochrome, ranging from 2 to 4 mg. per kilogram of body weight, were given intravenously daily. There were moderate reactions after all injections. There was an astonishing decrease of pus secretion after the first injection, and gradual diminution thereafter. The absence of organisms was complete after the third injection. Stomatitis developed on the sixth day of treatment, and intravenous therapy was discontinued. Instrumentation and silver nitrate failed to secure any evidence of infection on and after the eighth day. No other treatment of any kind was given this patient, and he has remained free from any symptoms of gonococcic infection to date, May 3, 1924.

CASE 2.—*Chronic gonorrhea of five months' history.* A white man, aged 24, admitted to treatment, March 10, 1924, had a profuse secretion. There was a mixed infection of gonococci and staphylococci. No treatment, save unknown tablets by mouth, had been taken for sixty days previous. Four daily doses of mercurochrome, ranging from 2 to 4 mg. per kilogram of body weight, were administered. Appreciably less pus was excreted after the first injection. Smears were negative for organisms after the third day. There was cessation of pus on the fourth day. Stomatitis occurred after the third dose, and attained moderate severity on the sixth day. The patient had a very severe initial reaction. The maximum elevation of temperature, 105 F., was noted after the last injection. Instrumentation failed to provoke any discharge after the seventh day. The patient has remained free from any manifestation of gonorrhea. No other treatment was given.

CASE 3.—*Chronic gonorrhea; primary syphilis.* A white man, aged 32, admitted to treatment, April 7, 1924, had extreme preputial edema; multiple chancres of the glans penis, and a copious urethral discharge, showing myriads of typical gonococci. An initial dose of 5 mg. per kilogram of body weight was given, after which there was a very noticeable subsidence of the urethral discharge. Two additional doses of 4 mg. were given at two-day intervals. Gonococci were undemonstrable after the fourth day. There was entire cessation of pus by the seventh day, with a reduction of the prepuce to nearly the normal size. A complete healing of lesions occurred. There has been no evidence of gonorrhea since. No local therapy was given.

CASE 4.—*Chronic gonorrhea of twelve months' history.* A colored man, aged 38, admitted to treatment, March 21, 1924, had a profuse pus discharge, positive for gonococci. Four daily doses of mercurochrome from 2 to 4 mg. per kilogram of body weight were administered. Severe stomatitis occurred after the last dose. Organisms disappeared after the second injection, and there was a steady decrease of pus daily. The "morning drop" persisting, urethral instillation of 2 per cent. mercurochrome was resorted to for eight days. No subsequent symptoms have occurred.

Six patients had had previous treatment for gonorrhea:

CASE 5.—*Chronic gonorrhea with vesiculitis.* A white man, aged 28, admitted to genito-urinary treatment, Jan. 17, 1924.

1. New and Nonofficial Remedies, 1924, p. 205.
2. Piper, E. B.: The Treatment of Puerperal Sepsis by the Use of Mercurochrome Intravenously, with a Report of Animal Experimentation in the Chemical Disinfection of the Blood, Am. J. Obst. 4: 532 (Nov.) 1922.
3. Young, H. H., and Hill, Justina H.: The Treatment of Septicemia and Local Infections, J. A. M. A. 82: 669 (March 1) 1924.
4. An unavoidable error resulted in four patients receiving mercurochrome solutions that were not freshly prepared, in more than one half of the total amount administered. Three of these patients are of those requiring subsequent treatments.

had contracted gonorrhea in October, 1923. Routine gonorrhea treatment was given to March 22, 1924, when mercurochrome intravenous therapy was begun, 2, 2.5 and 3 mg. being administered at forty-eight hour intervals. The usual rapid termination of subjective symptoms followed. Tests were completely negative after the sixth day. No symptom was provokable. The patient is apparently cured.

CASE 6.—*Chronic gonorrhea; cystitis;* B. coli. A white man, aged 40, admitted to treatment, Dec. 29, 1923, yielded a positive smear. He was placed on mercurochrome, March 13, 1924. Four graduated doses were given. Stomatitis terminated treatment. A pus discharge persisting, local treatment was resumed to April 25. There was no further evidence of gonorrhea.

CASE 7.—*Chronic gonorrhea.* A white man, aged 33, admitted to treatment, Feb. 1, 1924, gave a positive smear. Mercurochrome therapy was instituted, March 13. He received 7 mg. per kilogram of body weight, divided into three doses. Severe stomatitis precluded further intravenous medication. A "morning drop" has persisted. Local treatment was given.

CASE 8.—*Chronic gonorrhea.* A colored man, aged 28, admitted to routine clinical treatment, Feb. 28, 1924, gave a positive smear. Mercurochrome was administered in 2 and 4 mg. doses. Stomatitis developed after the second dose. Treatment was stopped. There was termination of the discharge, the day after the last treatment. There has been no recurrence, and no supplemental treatment was given.

CASE 9.—*Chronic gonorrhea; mild prostatitis.* A white man, aged 30, admitted to routine treatment, Dec. 12, 1923, gave a positive smear. The discharge was continuous to March 22, 1924. Mercurochrome intravenously was begun, 10 mg. in four graduated doses being administered. Stomatitis prevented further mercurochrome. Local instillation was resorted to for ten days until cessation of the "morning drop." Tests were negative, May 3, for any sign of gonorrhea. The prostate was normal.

CASE 10.—*Chronic urethritis.* A colored man, aged 30, admitted to local treatment, Nov. 22, 1923, had contracted gonorrhea in January, 1923. No apparent impression was made on pus secretion, which was continuously negative for organisms. Mercurochrome therapy was begun with a 2 mg. dose. Subsequent amounts of 2 and 4 mg. were given. No provocation could evoke any sign of infection to May 3, 1924.

SUMMARY

In ten of the cases cited, nine patients had positive gonorrheal smears, at some time, while under my care, and all gave typical histories.

The shortest case history was two months, and the longest, sixteen months.

The average total amount of mercurochrome administered was 9.6 mg. per kilogram of body weight.

The average time required for the complete disappearance of pus, in cured cases, was eight days. Six patients were discharged as cured, at the expiration of mercurochrome therapy. In two cases, a brief resumption of local antisepsis (eight and eleven days, respectively) was necessary, while the two remaining patients are still under local treatment.

The use of the word "cure" in this article is to denote cessation of all accepted symptoms of infections, and the inability to reproduce these symptoms by instrumentation and the injection of 1 per cent. silver nitrate solution into the urethra.

The rapid subsidence of symptoms in all, and the abrupt termination of symptoms in some cases, was almost incredible to one accustomed to the usual slow methods of gonorrheal treatment.

The results obtained are ascribed not only to the germicidal action of the mercurochrome, but, probably, as well to the inhibiting influence of the continued high temperature of reaction.

TUBERCULOUS MENINGITIS SIMULATING EPIDEMIC ENCEPHALITIS

REPORT OF A CASE *

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Notwithstanding the fact that the differential diagnosis between tuberculous meningitis and epidemic (lethargic) encephalitis, as given in most textbooks, appears to give little difficulty, in actual practice a correct diagnosis is frequently impossible. This is especially true in cases occurring in adults who have been in good health previous to the infection. As is well known, tuberculous meningitis may occur at any age, although it is most frequently seen in childhood. The onset is usually gradual, with signs of a vague and, frequently, slight illness. There is usually a rise in temperature, headache, vomiting and, frequently, constipation. The pulse is slow and irregular, although it may be rapid at the onset. After a variable period, the patient exhibits dulness, drowsiness, lethargy or stupor. Convulsions may occur, and at times there may be rhythmic contractions of various muscle groups. On examination, the muscles of the neck may present rigidity, with resulting retraction of the head. The cranial nerves are frequently involved, owing to the involvement of the meninges at the base of the brain by the tuberculous process. As a result, various palsies occur, especially palsies of the ocular muscles. Kernig's sign is often present. In seventeen of twenty-three cases of tuberculous meningitis in adults in whom this sign was looked for, Landis states, it was present to a marked degree in fourteen and definitely absent in three.[1] The reflexes are variable. The correct diagnosis depends on a painstaking examination of the cerebrospinal fluid. The fluid is usually under pressure, clear or turbid; often forms a clot on standing, and shows a reduction of normal sugar. A pleocytosis with a high proportion of lymphocytes is a common finding. The demonstration of tubercle bacilli by stained smears or by animal inoculation is, however, conclusive. The illness is usually fatal within a period of three weeks. The close clinical similarity to certain forms of epidemic encephalitis will be seen from an epitome of the chief features of this disease.

Epidemic encephalitis may occur at any age. It is more prevalent in the winter months. The onset may be insidious or abrupt, and usually appears as a general infection, followed by nervous manifestations. Symptoms indicative of lesions of the brain, particularly the gray matter of the basal ganglions and brain stem, are important features of the disease. Headache and double vision are common. Paralysis of any cranial nerve may be encountered, but involvement of the third, fourth and sixth is most frequent. Lethargy, while occasionally absent, is present in the majority of cases, in which instances the patient can be easily aroused. Irritability often occurs. Delirium is a common symptom. Myoclonic movements of various muscle groups may occur. Meningeal symptoms may be present. The reflexes are variable.

The cerebrospinal fluid is usually clear. The pressure is normal or slightly increased. The cell content is

* From the Department of Medicine, Service of Dr. Thomas McCrae, Jefferson Medical College.
* Read before the Section on General Medicine of the College of Physicians of Philadelphia, April 28, 1924.
1. Landis, H. R. M.: M. Clin. N. Am. 3: 137 (March) 1920.

normal in about one third of the cases, while in the remainder there is a pleocytosis averaging 20 to 30 cells per cubic millimeter, the lymphocytes predominating. The reducing bodies do not disappear, and the globulin may be normal or slightly increased.

The course of the disease is usually irregular and prolonged. With severe symptoms, the termination may be rapidly fatal, while if the disease extends beyond a period of three weeks, recovery is probable. There is often a recurrence of symptoms. Permanent changes in various parts of the nervous system, with resultant symptoms, may occur as sequelae. It will therefore be seen that the diagnosis depends on careful and repeated examinations of the cerebrospinal fluid.

REPORT OF CASE

A. C., a woman, aged 22, Italian, housewife, mother of two healthy children, had been ill for seven days before coming under observation, Feb. 18, 1923, when she complaineed of severe headache, double vision, difficulty in speech and pain in the right arm. On the second day of her illness, her speech became unintelligible. On the following day her hearing became impaired. The double vision, at first transitory, became persistent on the third day of her illness. The fever was present from the time of onset. Of interest in the personal history was the fact that the patient had a cough, which had persisted for the last six or seven years, and which became aggravated during the winter months. The cough was slightly productive, but hemoptysis had never occurred. In April, 1922, she had an attack of pleurisy with effusion on the right side, for which she was tapped.

When first examined, the patient was well nourished, and was stuporous in appearance, but she became noisy occasionally. The pupils were dilated, regular in outline, and reacted sluggishly to light. There was convergence of the eyes. Visible pulsation was evident at the suprasternal region. The muscles of the neck were not rigid. The chest examination was negative. The heart was negative for pathologic findings, except for an accentuation of the aortic sound. The heart and pulse rate was 120 a minute. The tension of the radial pulse was increased. An examination of the abdomen revealed no abnormality. The extremities were fully extended, and on examination showed a tendency toward Kernig's sign in the left leg. The temperature was 102 F. and the blood pressure was 130 mm. systolic and 80 mm. diastolic.

Three days later the patient was admitted to the hospital. The temperature was 103.4 F.; the pulse, 120; respiration, 24 a minute. She was quiet, and obeyed simple commands. The convergent squint became pronounced. The day following admission, the convergence was more marked in the left eye. A slight palsy on the left side of the face was noted.

The ophthalmologic examination, by Dr. Charles R. Heed, revealed the media clear, the disk margins slightly blurred. The veins were full and moderately tortuous. The retina was visible, and edema apparently was present. The pupils measured 5 mm., and reacted promptly to light and in convergence. External rotation was impaired in both eyes, indicating a double sixth cranial nerve palsy.

The fluid obtained by lumbar puncture at this time was not under increased pressure. The fluid was slightly turbid. The globulin was much increased. Fehling's solution was not reduced. The cell content was 405 cells per cubic millimeter, the large mononuclears predominating. The Wassermann reaction was negative. On this date the patient showed generalized rigidity.

Five days after admission, the patient's cerebral symptoms became aggravated. There were alternating periods of restlessness and stupor. The convergent squint became still more marked, and the facial palsy on the left side became more pronounced. Definite ptosis of the left eyelid appeared, and a slight ptosis of the right eyelid was noted. The muscles of the neck became rigid, but there was no marked retraction of the head. The reflexes were variable, but in general diminished. No Kernig's sign or Babinski's reflex could be elicited. Ankle clonus could not be demonstrated. The patient kept the legs now in a flexed position. There was no evidence of myoclonic contractions. The temperature was 104 F.; the pulse, 130; respiration, 28 a minute.

At the second lumbar puncture the fluid was under pressure, and slightly turbid. Fehling's solution was not reduced, and globulin was increased. The cell count was 430 per cubic millimeter. Tubercle bacilli were demonstrated for the first time. A sixth and third cranial nerve palsy on the left side was present. The blood Wassermann and urine examinations were negative. Eight days after admission to the hospital, the patient died.

SUMMARY AND CONCLUSION

The patient exhibited multiple cranial nerve involvement, lethargy, absence of muscular rigidity of the neck, and absence of Kernig's sign.

Tubercle bacilli were present on the second examination of the cerebrospinal fluid.

This clinical history emphasizes the importance of careful and repeated examinations of the cerebrospinal fluid for tubercle bacilli in patients exhibiting the symptoms of epidemic encephalitis.

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MISTAKEN DIAGNOSES IN INFANTS AND CHILDREN *

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The opportunity to check clinical diagnoses with necropsy findings is available to all hospitals with an active pathologic service. Reports, however, are infrequent, and the analysis here presented, from the New York Nursery and Child's Hospital, covering a period of three years, is presented with the hope that it will lead to similar studies.

Cabot's [1] contribution is well known, and any one intending to pursue such studies will do well to heed his admonitions. He says in part:

> It is not a simple matter to collate antemortem and postmortem data in an intelligent way. One cannot simply read off the clinical diagnoses and note their correspondence or lack of it with the anatomic findings, for:
>
> 1. It is often obvious when one reads the clinical record that the diagnosis has been copied from the autopsy protocol.
>
> 2. The clinical diagnosis may be so abbreviated as to omit important facts known during life. . . .
>
> 3. In some cases it has been clear, after a little study, that the clinical diagnosis actually written in the records had been hurriedly filled in by an intern and did not represent the opinion of the attending physician. . . .
>
> My comparisons, then, have been far from literal. In each case I have gone behind the recorded diagnoses and endeavored to reason out what diagnosis was justified by the facts as known during life.

All of the foregoing wise counsel applies equally well to the pediatrician in his studies with infants and children. Too many difficulties are inherent in the study of mistaken diagnoses to permit of anything less than a complete review of each case, if the results are to have any value. The chief of these difficulties is, What is a mistake?

The following cases illustrate this:

A child was brought in and the diagnosis was bronchopneumonia. Clinical and roentgen-ray evidence was complete. Necropsy findings showed, however, that in addition to the

* From the Department of Pediatrics, Cornell University Medical College.

1. Cabot, R. C.: A Study of Mistaken Diagnoses, J. A. M. A. 33: 1343 (Oct. 15) 1910.

bronchopneumonia there was also a hydronephrosis of one kidney, which had never even been suspected because the urinary findings were no more than one would expect in a severe febrile condition.

A boy, aged 6 years, was brought into the hospital because of certain neurologic changes. He was examined by several neurologists, but no definite diagnosis could be made. At necropsy the entire brain was as hard as though it had been in formaldehyd for three days, the only analogous pathologic condition even approaching it being the changes seen in amaurotic family idiocy.

Such cases are extremely difficult to catalogue, but it is hardly fair to demand the solution of problems which, for the present at least, are beyond the scope of a hospital, in judging its efficiency in making correct diagnoses.

Over a period of three years, 426 necropsies were done. Of these, sixty were from the obstetric service, and had not been seen by members of the pediatric staff; twenty-two were classified as unsatisfactory; seventeen patients died either in the admitting room or within twenty-four hours. Of the 327 remaining cases, the necropsy protocols agreed with the clinical diagnoses in 263 instances, or 80 per cent.

THE WRONG DIAGNOSES

Three groups stand out prominently in the mistakes, and deserve special consideration. These are prematurity, bronchopneumonia and acute intestinal intoxications. No less than sixty of the eight-one mistakes, and, for this part of the study, those cases in which the patient died within twenty-four hours are included, were in these conditions. Granting that this might be expected from mere numerical preponderance, it is no less incumbent on those in charge of infants and children to bear them in mind.

PREMATURITY

It is taught that the three essentials in the care of premature babies are to provide breast milk, to maintain body heat, and to prevent infection. All are of equal importance, but it is doubtful whether the last is given the consideration it deserves. A study of the nineteen necropsies that did not agree with the clinical diagnoses in a series of forty-one premature infants shows that nine respiratory infections, eight cerebral or other body hemorrhages, one ulcerative colitis and a porencephalus were not recognized.

This brings out in striking fashion that the chief problem confronting the physician is the prompter recognition of respiratory infections and hemorrhagic conditions. Corollary, of course, and of equal importance, is their prevention.

That but one case of colitis was missed does not necessarily mean that the physician is less likely to overlook this condition, although this is undoubtedly true, as demonstrated in the difference between the mortality due to gastro-intestinal diseases and that due to other diseases. With breast milk available, the former are kept at a minimum, but to care for the latter requires the strictest sort of aseptic technic on the part of both physician and nurse, with the complete elimination of all visitors. Of the three essentials, it cannot be gainsaid that the infections loom large in the picture.

The overlooking of eight hemorrhagic conditions in premature infants focuses attention on a situation which fortunately is attracting the attention it deserves. Cerebral and other hemorrhages occurring in the course of protracted labors have held the center of the stage too long, and it is encouraging to note the studies that are appearing in the literature dealing with this particular problem.

One cannot but agree with Ehrenfest's [2] plea for the recognition of the fact that the prophylaxis of intracranial hemorrhages in the new-born concerns most of all the obstetrician. One should not minimize the importance of what one conceives to be the duty of the obstetrician, but that there is another side to the question, and a vastly important one, is evident. When in a series of forty-one necropsies on premature infants, there were eight brain hemorrhages that were not even suspected, it is high time to take stock of the situation.

It does not seem possible that physiologic trauma is so frequently at fault in the premature infants, even admitting that it is possible in a spontaneous delivery to have this of such force as to cause a laceration of the dura mater.

BRONCHOPNEUMONIA

Respiratory infections form the second large peak of mistaken diagnoses. Of the eighty-two clinically diagnosed cases of bronchopneumonia that came to necropsy, it was not present in eight, and of these three were premature infants. With this disease, the difficulty was to recognize complications. The complications that were missed were: empyema, four; general miliary tuberculosis, four; suppurative meningitis, three; peritonitis, one; double mastoiditis, one; hypertrophied thymus, one; hydronephrosis of kidney, one.

Why were these complications missed? Probably the greatest single factor was the age of the patient. The younger the infant, the more rapid was the development of the complications, frequently with an utter absence of the signs and symptoms by which it might have been recognized. With a single exception, all in this group were under 1 year, and half of them were under 4 months of age.

The missed cases of general miliary tuberculosis require a special word. Under 2 years of age, by far the great majority of these cases are diagnosed by a positive tuberculin test and a roentgenogram of the chest. One of the fundamental truths in the use of tuberculin skin tests is that in a certain percentage of overwhelming infections the reaction is negative. This happened in three of four cases, and was directly responsible for the failures.

The missed peritonitis cases demonstrated, as did the empyemas, the insidious way in which suppurative processes proceed in early infancy, without giving any hint of their presence.

In the pneumonia series there was one case of an enlarged thymus in an 11 months old infant. This suggests the interesting question as to the part that status lymphaticus plays, especially in the so-called fulminating pneumonias.

It is more than likely that a fairly large percentage of the pneumonias that progress rapidly to a fatal termination within forty-eight hours of the onset are of this type. The association of status lymphaticus with sudden death is familiar. What, perhaps, is not taken full cognizance of is the fact that there must be certain children who are in a recessive stage, and while the onset of an acute infection may be no different than in the average child, yet the course of that infection may be so modified that a marked virulence is attributed to the infecting organism while, as a matter of fact, the host itself is primarily responsible.

2. Ehrenfest, Hugo: The Causation of Intracranial Hemorrhages in New-Born, Am. J. Dis. Child. **26**: 503-514 (Dec.) 1923.

ACUTE INTESTINAL INTOXICATIONS

As in the respiratory group, the difficulty was the prompt recognition of complications. The outstanding feature of the necropsies in these cases that were missed was the overwhelming preponderance of lung infections, no less than thirteen presenting such demonstrable pathologic changes. Eleven of the patients had bronchopneumonia, one a pyopneumothorax, and one a hilum tuberculosis.

If it is argued, and the argument is sound, that most of these are terminal infections, yet none the less must we recognize that our problem is twofold. Not only must immediate remedies for the presenting phenomena of dehydration be instituted, but the high incidence of respiratory infections must constantly be borne in mind. Every measure must be taken to prevent such developments.

The question as to how many of the intoxications were secondary to a parenteral infection is an open one. The majority in this series were not, although it must be remembered that many infections tend to disturb the water balance of the body.

PYLORIC STENOSIS

The differential diagnosis of pyloric stenosis does not ordinarily cause much concern, especially if we admit the contention of many that spasm is always present. Of the three cases so diagnosed which necropsy proved wrong, two were congenital abnormalities, and one presented no evidence of any obstruction. Unfortunately, the two patients with congenital abnormalities died before any roentgen-ray reports were available; and as one of these cases was diaphragmatic hernia, it was particularly unfortunate from a diagnostic standpoint.

The majority of patients with pyloric stenosis seldom vomit before the third week, and, conversely, the congenital abnormalities begin before that time. But, and this is what makes the differential diagnosis of vomiting cases in the first weeks of life difficult, a certain percentage of the malformations give signs of intermittent obstruction. Two in our series, one a diaphragmatic hernia and the other a malrotation of the colon, were typical. The lesson to be learned from these necropsy reports is that, in every vomiting infant, it is of paramount importance to rule out a congenital malformation.

MISCELLANEOUS

There were isolated cases in which mistakes had been made, such as a failure to recognize multiple lung abscesses in an infant who had a severe suppurative adenitis of the neck; but these do not lend themselves to any particular study, because they were too few. The outstanding feature of them all was not the failure to make a correct original diagnosis, but the absolute missing of the complications.

CONCLUSIONS

1. Eighty per cent. of cases coming to necropsy in which the patients had been at least twenty-four hours in the hospital had been fully and correctly diagnosed.

2. The three groups that showed the largest percentage of error were prematurity, bronchopneumonia, and acute intestinal intoxication.

3. Complications develop so insidiously, especially in infants, that it is the failure to recognize them that leads to the greatest number of diagnostic mistakes.

4. In the differential diagnosis of pyloric stenosis, the possibility of congenital abnormalities must be fully considered.

39 East Sixty-First Street.

OBSERVATIONS IN A CASE OF JEJUNAL FISTULA*

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AND
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A case of high complete intestinal fistula has offered an opportunity for making observations on the functional activity of the upper intestinal tract, some of which have a bearing on modern interpretations of gastro-intestinal physiology.

REPORT OF CASE

A man, aged 38, suffered a severe crushing injury of the jejunum, Oct. 22, 1923. Dr. G. H. Copher, at the St. Louis City Hospital, resected about 2 feet of intestine and brought the free ends out of the abdomen, as an emergency measure. About 4 feet of jejunum remained above the fistula. After a stormy course, requiring two blood transfusions, the patient reacted slowly. He came under the care of one of us (E. P. L.), Nov. 1, 1923, because of alternation of services. At this time, the acute symptoms were subsiding, and the problem became for the time wholly dietary. We were confronted by a situation in which the patient had lost practically his entire absorptive mechanism when fed by mouth, and his entire digestive mechanism when fed by tube placed in the lower loop of bowel. The constant aim in our minds was to build him up to a degree permitting closure of the fistula. This attempt ultimately failed, and the patient died of general peritonitis, Jan. 20, 1924, two days after an end to end anastomosis of the bowel.

The difficulties of feeding rationally in a busy general service soon became clear, so that, November 25, one of us (H. V. G.) took over the feeding problem. This task necessitated almost constant bedside attention, in the course of which the observations recorded here were made. They may be divided into observations on the motor, vasomotor and secretory phenomena. It was found impossible to make accurate digestive observations on account of the irregularity of the motor and secretory responses, as will be seen later. In interpreting the data obtained, it must be remembered that the physiologic processes were subjected to abnormal conditions by (1) the loss of 2 feet of bowel and (2) the persistence of an inflammatory process in the walls of the bowel and in the peritoneum.

A survey of the diet at the time when accurate observations began showed that the patient was receiving peptonized whole milk by tube into the lower loop of exposed intestine, together with one fresh triturated pancreas from a pig, each day. Twenty per cent. glucose solution made up the remainder of the diet. Approximately a thousand cubic centimeters each of milk and glucose was being given, divided into feedings given every two hours. The milk was administered through the day as nearly as possible at the time of giving the pancreas. Food had been given by mouth previously, but this had been abandoned on account of its apparently total loss through the fistula. It was evident that this regimen did not offer sufficient antiscorbutic elements,[1] and also that there were no biliary secretions present in the lower loop to aid in fat digestion and absorption. The effect of the latter deficiency was a fatty diarrhea. Later in the course of the case, a diarrhea occurred from too much glucose in the intestine.

The first change in the feeding was to give a more varied diet in more concentrated form at longer intervals. Also, steps were taken to supply hepatic secretion to the site of digestion by the administration of oxgall.[2] Eggs were added to the diet, with cream and a little olive oil. A fatty diarrhea developed in a more pronounced form than formerly, so that fats were removed from the diet and more eggs and glucose were given to make up the caloric requirements. When the diarrhea subsided, which it did at once, a plan was adopted for utilizing the patient's own digestive enzymes, which were being lost

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1. Chick, Hume and Skelton: J. Biol. Chem. **12**: 1918.
2. Rous, Peyton; Broun, G. O., and McMaster, P. D.: J. Exper. Med. **37**: 395, 421 (March); **37**: 685, 699 (May); **37**: 733 (June) 1923.

through the fistula. Food was given by mouth, and the resultant succus entericus appearing at the fistula was collected with a syringe and mixed with the food to be injected into the lower loop of the bowel. The food given by mouth was chosen with regard to its digestibility and its stimulating effect on the digestive secretions. For this purpose, buttered bread, milk and soft cooked eggs were used, with the occasional addition of meat extractives or a little meat.[3]

As this plan of feeding, with the addition of orange juice to the food, seemed to improve the patient's digestion and his general condition, it was adhered to throughout the remainder of the observations. The daily routine consisted of giving the patient a slice of buttered bread (preferably toasted), one soft cooked egg, and a glass of milk. All the material subsequently appearing at the fistula was collected with a syringe and placed in a container with the food to be given later through the tube into the lower loop. This was warmed. The mixture of upper intestinal secretion and food was then divided into two portions and given at periods of from four to six hours into the lower loop. The food given daily in this manner consisted of: milk, 300 c.c. (200 calories); cream, 100 c.c. (180 calories); two raw eggs (140 calories); orange juice, 100 c.c. (50 calories); glucose, 90 gm. (360 calories); lactose, 120 gm. (480 calories); material from the upper loop, 600 c.c. (350 calories); total, 1,760 calories.

Lactose was added because glucose used alone excited a fermentative diarrhea. In addition to this food, the patient received daily about 500 c.c. of 20 per cent. glucose solution, and enough water to keep the fluid intake up to approximately 2,500 c.c.[4] The daily calories ranged from 1,500 to 2,000 when all the food was retained. This diet was theoretically sufficient for the patient's needs, and was all that he would retain in the distal loop without regurgitation. However, it did not offer a satisfactory margin of caloric content above his basal requirements, so that marked improvement in nutrition could not be expected.[5]

After every feeding, the fistula was observed with the following phenomena in mind: (1) The time of the appearance and the character of the motor activity of the bowel; (2) the time of the appearance and the intensity of the flushing of the mucosa; (3) the time of the appearance, the duration of the flow and the character of the digestive juices; (4) the results of observations.

Motor.—The motor reactions of the bowel were variable, and all the controlling factors had to be considered before any parallel could be drawn between the different observations. After each feeding by mouth there would appear a peristaltic movement in the exposed upper intestine, followed soon after by movement of the lower intestine. The time of the appearance of the proximal loop movement varied from three to forty minutes after feeding. The interval between the appearance of peristalsis in the upper loop and its appearance in the lower loop varied from one to fifty minutes, and was invariably present. The movements observed were of two varieties, one, a long tonic contraction, accompanied by the discharge of contents, and the other a short series of small, writhing, churning movements, unaccompanied by any discharge. The shorter movements occurred at intervals usually of about one minute, while the longer contractions came about three to five minutes apart. These movements are adequately described in detail by Cannon,[6] Carlson,[7] Alvarez,[8] Richter[9] and others.[10] Richter has recently shown the long movements to be due to the contraction of the circular muscles, while the short peristalsis is due to the contraction of the longitudinal muscles of the bowel.

The feeding of coarse food, such as meat or the woody fiber of orange pulp, greatly intensified both types of movement, as did the feeding of doughy foods. The patient was fond of soft bread, which invariably appeared at the fistula in doughy masses accompanied by hyperactive peristalsis. Toasted bread, on the contrary, appeared at the fistula in much smaller particles with, of course, a relatively greater surface exposed to digestive action. Parenthetically, the importance of this difference in its clinical application may be mentioned.[11]

The observations on abnormal movements were not so consistent. There were periods of unceasing effort on the part of the lower loop to expel the tube inserted into it. If the tube was secured in place, these movements might persist for hours, with alternating short periods of rest and reverse peristalsis.[12] This did not in itself cause the patient any discomfort; but these periods were most often associated with periods of general depression. In the upper loop, reverse peristalsis with vomiting was definitely associated with psychic depression, fever or some form of mental disturbance on the part of the patient, as for instance after the opening of an abscess in the axilla.[8] In addition, mechanical irritation of the jejunal mucosa of the upper loop resulted in a reversal of peristalsis. Early in the case, an attempt was made to insert a catheter toward the duodenum from the fistula. The patient became very much nauseated. Later attempts were made, proceeding very slowly, without disturbing the patient. It was noticed that when the catheter had passed in a distance of about 15 cm. it seemed to meet obstruction.[9] No amount of moving about could force it farther without causing nausea to the patient. If, however, the tube was merely held in place for a minute or so without movement, it would suddenly move upward a short distance. It could then be inserted full length without meeting further obstruction. In fact, if left in place it would often be dragged upward by intestinal movements, as if the intestine was trying to rid itself of the irritation by reverse peristalsis and expulsion through the mouth. Attempts to drain the upper loop of bowel through a tube so placed were always unsuccessful, because the intestinal mucosa shut off the opening above, and the contents were discharged around the tube. Besides this, the tube exerted sufficient mechanical stimulus to cause nausea and vomiting, if left in place for any considerable time.[11]

The time of the appearance of solid food as compared with that of liquids was made the object of several observations. The results showed, on the average, appearance times of about twenty minutes for solid and semisolid foods, and about three minutes for liquids.[6] The actual intervals were extremely diverse in each type of food. During sleep there was a definite decrease in peristaltic activity.[13]

Vasomotor.—Vasomotor changes in the exposed loops of intestine were constant. After the ingestion of food by mouth, there appeared, at intervals varying from five to twenty minutes, a change in the appearance of the mucosa.[14] The resting pink color would darken and change to a purplish of greater depth. Small venules could be distinguished as a fine network, and the whole mucosa took on a translucent appearance. The appearance of this vasomotor change, like the motor phenomena, always took place in the upper loop first. From five to twenty minutes would elapse before the change in the lower loop followed. The flush lasted from thirty to fifty minutes, fading out gradually. The time of the appearance and the duration of these phenomena roughly paralleled those of the motor activity of the bowel.

Secretory.—There was never any appreciable amount of secretion from the upper loop except after a mouth feeding. The normal secretion appeared to be black bile (from the gallbladder?) at first; then, after a few minutes, the color would change rather abruptly and the rest of the fluid would be light yellow. During the early part of the flow the fluid was usually thick and mixed with considerable mucus. The largest amount of fluid was secreted in response to meat or meat extractives.[15]

3. Mathews, A. P.: Physiological Chemistry, New York, William Wood & Co., 1920. Pawlow: The Work of the Digestive Glands, London, C. Griffith Company, Ltd., 1910.
4. Mathews (Footnote 3).
5. Lusk: Science of Nutrition, Philadelphia, W. B. Saunders Company, 1921.
6. Cannon: Mechanical Factors of Digestion, New York, Longmans Green & Co., 1911.
7. Carlson: Control of Hunger in Health and Disease, Chicago, University of Chicago Press, 1916.
8. Alvarez: The Mechanics of the Digestive Tract, New York, Paul B. Hoeber, 1922.
9. Richter: Action Currents from the Stomach, Am. J. Physiol. **67**: 612 (Feb.) 1924.
10. Boldyreff: Bulletin of Battle Creek Sanitarium **19**: 49 (Dec.) 1923.
11. Hertz: The Sensibility of the Alimentary Tract, Goulstonian Lecture, 1911, London, Henry Frowde, Hodder, Stoughtan, 1911. Richter (Footnote 9).
12. Busch, W.: Arch. f. path. Anat. **14**: 1862.
13. Alvarez (Footnote 8). Trephones—Growth-Promoting Substances, editorial, J. A. M. A. **82**: 549 (Feb. 16) 1924.
14. Howell: Textbook of Physiology, Ed. 8, revised, Philadelphia, W. B. Saunders Company, 1923. Stewart: Manual of Physiology, Philadelphia, W. B. Saunders Company, 1905. Starling: Recent Advances in the Physiology of Digestion, Chicago, Keener, 1906.
15. Mathews (Footnote 3). Beaumont: Physiology of Digestion, Burlington, Goodrich, 1847.

One abnormal secretory phenomenon of interest was observed. On one occasion, the patient felt nauseated throughout the day, after his usual morning feeding. The flow of bile had been noticed to be thin and light yellow from the beginning. A short time before the next feeding, the patient passed a large amount of black looking fluid from the upper loop, and at once felt relieved of his nausea. It is supposed that he had retained gallbladder bile throughout the day. He complained of no pain during this time.

Several experiments, summarized in the accompanying table, were performed to observe the effects of acid and alkali on secretion.* These were initiated at the suggestion of Dr. W. H. Cole, who had been performing some related experiments not yet published. The ingestion of dilute hydrochloric acid resulted in practically no secretory response, and the same was true of sodium bicarbonate. If, however, the dilute hydrochloric acid was immediately followed by sodium bicarbonate or if the order of administration was reversed, there was a prompt and profuse flow of clear brown fluid. This pointed to one of the interaction products as the stimulus. To determine whether sodium chlorid or carbon dioxid was the stimulus, the former was then administered in a small amount of dilute solution (double normal). This procedure resulted at once in an equally profuse flow of fluid from the fistula. The salt was not in sufficient concentration to cause an osmotic flow of fluid into the bowel. These results, repeated several times, must be interpreted as being due to an actual secretory and motor stimulus by weak sodium chlorid solution. They present a problem that we are subjecting to experimental study on the dog.

Typical Motor and Secretory Response to Ingested Acid, Alkali and Common Salt

Experiment	Stimulus	Amount	Response	
			Motor	Secretory
1	Tenth normal hydrochloric acid	1 c.c.	0	0
2	Hydrochloric acid + sodium bicarbonate	1 c.c. tenth normal hydrochloric acid + 1 gm. sodium bicarbonate	++++	++++ 100 c.c. clear brown fluid
3	Sodium bicarbonate	1 gm.	+	+ Clear brown fluid
4	Sodium bicarbonate + hydrochloric acid	1 gm. sodium bicarbonate + 1 c.c. tenth normal hydrochloric acid	++++	++++ Clear brown fluid
5	Sodium chlorid	1 gm.	++++	++++ Clear brown fluid

COMMENT

Of these observations, two stand out as worthy of especial comment. The first in importance is the time interval between the appearance of motor activity in the upper and in the lower loops. Alvarez [1] has attempted to explain most peristaltic activity on the so-called gradient theory of muscular irritability and activity, minimizing whatever central control factors there may be. Here, we have evidence that the stimulus in the upper loop is carried across an anatomic and physiologic gap in the bowel to the lower loop, causing peristalsis there, although there is no stimulus whatever applied locally to the lower loop. This could hardly occur except by a central control mechanism, using the term to mean a mechanism coordinating the activity of separate segments of the bowel. No nervous impulse could have been transmitted across the gap. An electrical wave would have been transmitted without a time interval. Furthermore, a central mechanism, sending stimuli which originate, let us assume, in a filled secreting stomach to the various segments of the bowel progressively caudad, would send stimuli also through the severed autonomics running to the absent 2 feet of bowel. These lost impulses may be conceived to be represented by the time interval between the motor activity of the upper and the lower loops. Further evidence of a central control mechanism was seen in the constant appearance of motor activity in the upper loop, soon after food was injected into the lower loop. In any consideration of local versus central control of the gastro-intestinal tract, these observations must be kept in mind. No similar observations have been met in the literature.

The second point of interest, which also does not appear to have been previously noted, is the effect of sodium chlorid on secretion and peristalsis. The marked activity of both under the influence of a weak saline solution (about double normal) by mouth was striking. The absence of marked effect of acid or alkali separately has been noted. On one occasion, the salt was given when the patient was nauseated, with a prompt flow of secretion and a prompt relief of the subjective symptoms. This suggests a point of possible clinical value in reestablishing normal peristalsis when there is a tendency to reverse peristalsis.

ARTIFICIAL LIGHT THERAPY IN TUBERCULOSIS *

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The curative rôle of light in rickets and tetany is now commonly accepted. Under the influence of light, the blood in rickets shows an increased phosphorus content, and calcium deposition in the epiphyses of the long bones readily takes place. The blood in tetany shows an increased calcium and phosphorus content and, clinically, the disappearance of such symptoms as carpopedal spasms, laryngospasms and convulsions after a few exposures to quartz mercury vapor radiations. Lupus vulgaris of the skin is healed by combined local and general light exposures in almost 90 per cent. of cases. Extrapulmonary tuberculosis in many forms yields to treatment with sunlight and artificial light radiations. These results have been so clear cut in a large number of cases and yield so much promise that a knowledge of light and its clinical applications has become a requisite not only of the physiotherapist but also of the general practitioner.

My own use of light therapy, both clinically and in laboratory experiments, since 1917, and the noteworthy results attained by such practice, has led to the presentation of this material. Because of the broad scope of this field of therapy, only brief reference can be made to the more important facts.

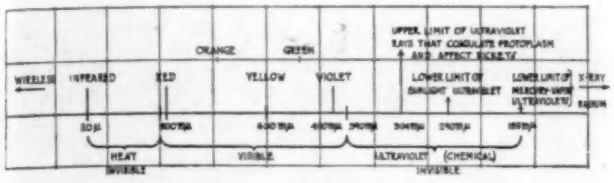
PHYSICAL CHARACTERISTICS OF LIGHT

Figure 1 is a graphic representation of the divisions of the spectrum, showing the visible region limited on one end by the infra-red rays and on the other end by the ultraviolet rays. It may be convenient to recall that the visible spectrum extends from about 800 millimicrons to about 400 millimicrons; the solar ultraviolet rays range from 400 to 290 millimicrons, and the ultraviolet rays of artificial light sources from 490 to 185 millimicrons. Those of a source such as the carbon arc have as their lower limit 220 millimicrons, while those of the quartz mercury arc terminate at 185 millimicrons.

* Read before the Harvard Medical Society, Jan. 22, 1924.

Vibrations of all wave lengths appear to possess some light, heat, and the ability to hasten or influence chemical reactions. As a rule, however, heat production is chiefly associated with the infra-red and the red rays; light is chiefly associated with the range from red to violet, while the most active rays chemically are the ultraviolet, blue, indigo and violet.

The infra-red rays are highly penetrative, while the ultraviolet rays possess this power only to a limited



μ = MICRON = .001 MILLIMETER.
mμ = MILLIMICRON = .000001 MILLIMETER.
A = ÅNGSTRÖM UNIT = .0000001 MILLIMETER.

Fig. 1.—Divisions of the spectrum; visible region limited by infra-red and ultraviolet rays.

degree. The regions of the spectrum vary greatly in their degree of absorption in different substances. Water vapor, for instance, absorbs infra-red rays to a very great extent. Quartz and fluorite glass and clear distilled water are practically the only substances that do not absorb ultraviolet rays to a very great extent. Ultraviolet rays lose about 60 per cent. in intensity in penetrating the atmosphere before reaching the lowlands. Ordinary window-glass absorbs ultraviolet rays below 330 millimicrons. The ultraviolet rays between about 330 and 290 millimicrons are probably the best producers of pigmentation, and because of their absorption by window-glass it becomes most difficult to tan behind glass, other than quartz. Snow, ice, water and sand increase ultraviolet intensity by reflection.

PHOTOCHEMICAL ACTION OF SEPARATE REGIONS OF THE SPECTRUM

Infra-red rays produce an immediate hyperemia and redness, which, however, soon disappears after the cessation of irradiation. The deep penetration of these rays may cause deep heat action, although in guinea-pigs it has been shown that they are more likely to produce cutaneous blebs. The visible rays provoke light, heat and metabolic changes. However, the visible red (heat) rays are more likely than the infra-red rays to elevate subcutaneous temperature.

Ultraviolet rays are rapidly absorbed by most tissues to a depth, however, of approximately only 1 millimeter, and produce marked chemical or actinic changes in accord with Grotthus's or Draper's law, namely, that "only those rays that are absorbed can induce chemical changes." Hemoglobin quickly absorbs ultraviolet rays, as well as those of longer wave lengths, up to approximately 450 millimicrons. Blood serum also absorbs the ultraviolet rays, chiefly because of its tyrosin and tryptophan content.

ACTION OF ULTRAVIOLET RAYS ON PROTOPLASM

The brownian movement of colloidal particles quickly ceases on exposure to ultraviolet rays. Egg and serum globulin is precipitated at the expense of albumin. Lens-albumin previously sensitized by certain salts, such as calcium, sodium and magnesium, or by the silicates or dextrose, becomes susceptible to ultraviolet rays.

Bacteria are rapidly destroyed by these rays, the bactericidal effect becoming more marked as the wave length decreases. Temperature elevation increases this destructive action, while changes in the hydrogen-ion concentration appear to play no significant rôle.

Red blood cells in vitro are quickly hemolyzed, probably because of the destruction of the lipoidal membrane. This, however, does not occur in vivo. Protoplasm may be so affected by ultraviolet radiation, and thereby become especially sensitive to heat radiations.

A marked seasonal variation in intensity of solar ultraviolet rays exists, a phenomenon in some part correlative with the seasonal variation in the incidence of such diseases as rickets and tetany. There may also be a seasonal variation in the rate of animal growth.

The visible manifestations of tissue hyperemia due to ultraviolet radiation occur only after the lapse of a certain latent period (two hours or more). On repeated exposures, a product, melanin, is formed in the basal cells of the epidermis. This may be due to the action of certain skin oxydases on a breakdown product of tyrosin, such as dioxyphenylalanin (Bloch).

Unicellular organisms are stimulated to certain physiologic changes, such as fission, or may be destroyed by ultraviolet radiation, depending on factors such as the intensity of the irradiation, the depth penetration of the wave length employed and the size of the organism. Thus, very short ultraviolet rays penetrate only to the cytoplasm, whereas longer ultraviolet rays reach the cell nucleus. Small doses of light appear to have a stimulating action, while larger doses produce deferred physiologic changes, and still larger doses may destroy such organisms.

Fig. 2.—Filling defect in cecocolon in tuberculous colitis.

THE PHYSIOLOGIC ACTION OF LIGHT

Blood serum shows an increased calcium and phosphorus content under ultraviolet radiation in rickets and tetany. As a result there is an increased calcium deposit in the epiphyses of the bones in rickets, due in all probability to an increased absorption of calcium from the intestines.

Under solar radiation, the blood shows increased alkalinity, and this all the more under the action of the heat rays.

Animals kept in darkness from birth show no gross changes from those exposed to light, but blood examination shows a lower blood platelet count. On exposure of these animals to mercury quartz vapor radiations, the number of platelets is increased to normal.

Light exposures do not induce changes in red blood cells and hemoglobin, except a very transitory one, and this chiefly when a preexisting anemia occurs. Lymphocytosis in rabbits can be induced by exposures to the shorter ultraviolet rays. Cell membranes have shown an increased permeability on exposure to these short wave lengths.

Basal metabolism is increased by light exposures alone, but this can be markedly increased by the additional action of moving air, winds and salt water baths.

The rate of growth may possibly be increased under the action of light.

THE SKIN AS AN ORGAN

The skin may be considered an expansion of the nervous and circulatory systems. Its exposure to light rays produces an immediate and a delayed hyperemia, due either to the heat or to the chemical radiations. According to Krogh, the hyperemia induced by ultraviolet rays is caused by a direct action of the rays on the cutaneous capillaries. From an apparently lifeless, toneless and flabby skin, light exposures may produce a soft, velvety, colorful tissue. Under exposures to solar radiation, remarkable muscular tonus has been produced in unused muscles, despite prolonged application of immobilizing casts.

Increased physiologic action of the skin under light exposures may be predicated. Increased respiratory,

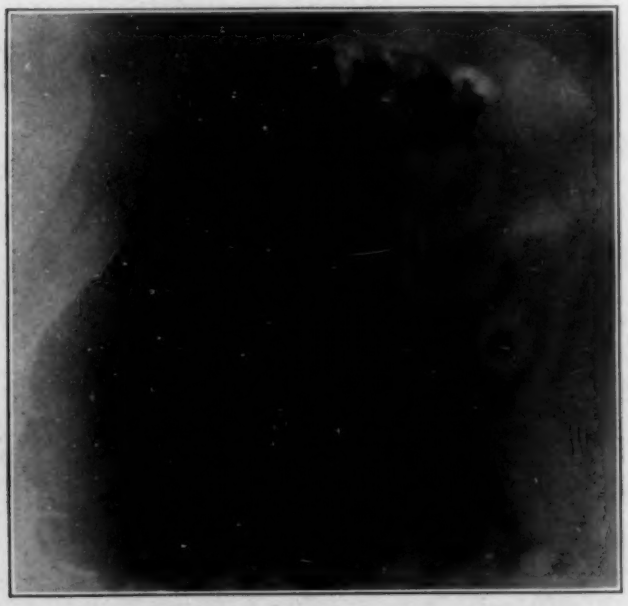


Fig. 3.—Complete loss of filling defect after eight months' use of quartz mercury vapor radiations.

excretory and protective power has been found to take place, and is now accepted as fact. It is rare to find acne developing in tanned skin. During an epidemic of chickenpox at Rollier's clinic, no cutaneous vesicles were found on tanned skin, whereas they did appear on unexposed areas beneath plaster casts. Increased heat output by radiation under a provoked hyperemia must demand increased metabolism to supply the additional caloric output; this in turn may imply increased body metabolism. Under light exposures, respiration is decreased in rate but increased in depth. Increased body heat production obviously demands accelerated vital reactions.

The possibility of stimulation of the skin to produce so-called "antibodies" cannot be entirely discarded.

The action of light in the depths is in all probability an indirect one, by way of the nerves and the blood vessels. The ultraviolet rays are absorbed by the epider-

Fig. 4.—*A*, untreated ulcerative corneal tuberculosis of rabbit; *B*, rabbit's corneal tuberculosis healed after five months' use of quartz mercury vapor radiations.

mis; however, they may possibly reach the projecting capillaries of the dermis. The deeper penetration of the longer visible and the infra-red rays may allow of slight direct depth action, but there is little cause to believe that this can be of much therapeutic value directly.

QUARTZ MERCURY VAPOR AND CARBON ARC LIGHTS

Enthusiasts for heliotherapy insist on the use of radiations having a spectrum closely resembling that of sunlight. There is no other basis for this than that the results with solar exposures have been most favorable in the hands of these workers. There are sufficient grounds for expecting therapeutic results with other combinations of light rays. We may logically reason that certain diseases are more easily responsive to sources of greater intensity in ultraviolet radiation than to solar radiation. Empirically, this has been noted in the treatment of certain forms of tuberculosis.

The quartz mercury vapor light has a preponderance of the short ultraviolet rays, but also emits the longer ultraviolet rays, the blue, indigo and violet rays, and some few green and red rays. Heat particularly comes from the heated mercury and tungsten electrodes, the quartz container and the reflecting hood.

The carbon arc emits wave lengths similar to those of sunlight, but with a preponderance of infra-red and longer ultraviolet rays.

CLINICAL OBSERVATIONS

Only brief refence may be made to the use of light, more especially the mercury quartz, in a few major complications of tuberculosis.

Intestinal Tuberculosis.—The diagnosis of intestinal tuberculosis is, as a rule, established by the subjective symptoms of alternating constipation and diarrhea, vague digestive complaints, abdominal pain, nausea, vomiting, and soft or watery stools; or merely by persistent loss of weight or slight elevation of temperature, otherwise unexplained, or by any or all of these symptoms combined with roentgen-ray demonstration of

filling defects in the cecum or ascending colon (found in a case of pulmonary tuberculosis).

Figure 2, taken before treatment, shows this defect in the cecum of a patient suffering from intestinal tuberculosis, and Figure 3 shows its complete disappearance after eight months of quartz mercury vapor exposure; this was accompanied by a complete cessation of digestive complaints. We are convinced, after the study of a large series of patients so treated, that this is not merely a spontaneous recovery but one directly influenced by the treatment employed. Too many cases have now been seen (eighty-eight of them I have rather carefully studied and a larger series has been reported by others, such men as Brown, Stewart and Pritchard) to conclude that the benefits were the result of mere coincidence. Experimental studies are now in progress at the Saranac laboratories which aim to elucidate the mechanisms involved.

Hilum Tuberculosis.—A type of tuberculosis in which it appears that the importance of the favorable influence of light action has not been sufficiently stressed is hilum tuberculosis. If the roentgen-ray and physical examinations reveal no definite pathologic conditions, then the diagnosis is necessarily made a method of elimination in children or adults having some form of combination of symptoms, such as elevation of temperature, tachycardia, loss of weight, strength and appetite, or cough and expectoration together with a marked sensitiveness to tuberculin inoculation. I obtained especially favorable results on application of mercury quartz radiation in the majority of eighteen such cases in which combined therapeutic measures without light had previously failed, and a direct relationship between the treatment employed and the clinical effect had to be concluded.

Superficial Tuberculosis.—To study the effect of light exposures on superficial tuberculosis, we produced an experimental bovine tuberculosis of the cornea in rabbits and then irradiated these with quartz mercury light alone, or in combination with certain sensitizing substances, chiefly dyes, directly applied to the lesion. Marked differences in the treated eyes as contrasted

Fig. 5.—*A*, untreated corneal tuberculosis of rabbit; *B*, eye healed after three months' use of quartz mercury vapor radiations, combined with eosin instillations.

with the controls may be seen in Figures 4 and 5. Variations in response occur with different exposures and the different sensitizing substances employed.[1]

Lupus Vulgaris.—Lupus vulgaris and ulcerative tuberculosis of the mucous membranes, such as the pharynx, respond to combined local and general body exposures. The possibilities of affecting a laryngeal tuberculosis with artificial light sources are theoretically promising, since it is possible to provoke chemical changes of tissue, focal reactions (as with tuberculiin treatment), hyperemia, and even destruction of at least the most superficial of the bacteria. The hyperemia may induce an analgesia in painful laryngitis. We are now using a special form of water cooled mercury quartz light, applied directly to the larynx, both alone

Fig. 6.—*A*, persistent lupus vulgaris (January, 1923) after two and one-half years of local carbon arc irradiations; *B*, condition six months later after general body irradiations for that period and no local exposures.

and in combination with sensitizing substances, such as eosin and quinin. The results are promising, particularly when focal reactions are induced; but they do not yet permit of conclusive deductions.

It seems imperative in all forms of tuberculosis to which light is applied to combine both general and local irradiations. The greater importance of general irradiation, in at least one form, is clearly demonstrated in Figure 6 (from the Copenhagen institute, Reyn). It has been shown that healing takes place in 30 per cent. more of cases of lupus vulgaris when general body irradiations are used in addition to local exposures.

CONCLUSION

Lack of time precludes the consideration of other important complications of tuberculosis, such as bone and joint, peritoneal, fistulous and glandular. Light may be particularly advocated as an adjuvant in these types of cases.

Reliance on its use in pulmonary tuberculosis is not to be especially encouraged.

Other factors, such as pigment, its formation and function, the matter of dosage of light application and the mode of light action, cannot be entered into here. This presentation has been made chiefly to hint at future possibilities of light therapy which will require closer cooperation between clinician, laboratory experimentalist and physicist.

108 Main Street.

1. Detailed reports of these studies are appearing in the American Review of Tuberculosis.

Related Health Problems.—The earnestness of purpose among advocates of special lines of health activities is deserving of great commendation, but the policy of conducting campaigns, each dealing with some particular problem regardless of its relation to the other similar problems, is productive of confusion.—W. S. Draper: *Pub. Health Rep.* **38**:2715 (Nov. 16) 1923.

UNUSUAL ORGANISM (ALTERNARIA, SP.) OCCURRING IN CHRONIC PULMONARY DISEASE

PRELIMINARY NOTE *

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AND
R. L. HADEN, M.D.
KANSAS CITY, KAN.

In those forms of chronic pulmonary disease in which the course is atypical, the symptoms severe and persistent, the physical examination inconclusive and the laboratory reports negative, the study of fresh, unstained preparations of the sputum and, at necropsy, of lesions macerated in a strong solution of potassium hydroxid often reveals unexpected and suggestive findings. By this method of study we found, in the sputum of one case and in the pulmonary lesions of three cases, an unusual organism that has not been described in association with disease in man or in animals.

This organism is characterized by its pyriform or club shape, its beaded or septated structure, and its diffuse brown pigmentation. Occasionally, it is associated with a small, rounded, nonpigmented body with a roughened surface covered with flattened spurs giving it the appearance of a golf ball. The beaded, pyriform body is similar to the septated spore of the genus of fungi imperfecti called *Alternaria*. This fungus has not been associated with human or animal diseases, but is known to cause various diseases in plants, such as potato blight [1] tomato rot, and a peculiar disease of tobacco plants and of carnations.[2] It is rather widely distributed in nature. It forms a profuse greenish black

Fig. 1.—Typical organisms in lesion of lung macerated in strong potassium hydroxid solution and stained by Sabouraud's method; × 230; *a*, golf ball form; *b*, typical segmented club-shaped spore.

growth when inoculated on 4 per cent. maltose agar, and shows numerous segmented pigmented pyriform or club-shaped spores that often occur in chains about the edge of the mycelium.

* From the Departments of Pathology and Experimental Medicine, University of Kansas School of Medicine.

1. Duggar, B. M.: Fungous Diseases of Plants, Boston, Ginn & Co., 1909, p. 306.
2. Stevens, F. L.: The Fungi Which Cause Plant Disease, New York, the Macmillan Company, 1913, p. 621.

REPORT OF CASES

CASE 1.—A young colored woman had marked respiratory symptoms, with indefinite physical findings and negative laboratory examination, with the exception of a positive Wassermann reaction. The study of unstained smears of the sputum showed the characteristic septated, pyriform spore of an *Alternaria* mold. No attempt was made to isolate it at this time. Death occurred four months later, and at necropsy a peculiar, indurated consolidation was noted in the left lung,

Fig. 2.—Granulomatous nodule of lung in Case 1, showing organisms in center; × 160.

especially along the base of the upper lobe. It was intimately related to the pleura, and was very sharply defined. It resembled tuberculous pneumonia, but was more indurated and showed many small cavities, and the exudate was sticky and mucopurulent in type. Portions of this consolidation, when macerated in strong potassium hydroxid solution, showed many characteristic, club-shaped beaded spores, and a few "golf balls." Unfortunately, the body had been embalmed before the necropsy was permitted, and the organisms could not be isolated. However, they were found in paraffin sections of the lesions. Furthermore, peculiar granulomatous foci with radiating clubbed structures surrounded by pus cells were seen in some sections, and seemed not unlike an actinomycotic lesion.

CASE 2.—A man entered the hospital with the diagnosis of diabetes. While in the hospital, symptoms of chronic pulmonary disease became prominent, with profuse expectoration of foul sputum. As in the first case, acid-fast organisms were not found even with the use of the antiformin method. A diagnosis of bronchiectasis was made. At the necropsy, both lungs showed consolidated, indurated areas between large cavities, giving the lesions a tuberculous appearance. The exudate in the alveoli was unusually sticky and tenacious. Macerated lesions showed the same beaded spore as in the first case, but the organism could not be isolated because the body had been embalmed. The histologic examination was similar to that of ulcerative tuberculosis.

CASE 3.—A man, aged 78, injured his hip, developed extensive decubitus, and died two months later. At necropsy a peculiar bronchopneumonia with much induration and cavity formation and with a very thick, tenacious, purulent exudate was found in the anterior lobe of the left lung. Maceration of these lesions with potassium hydroxid showed the same characteristic septated spores and "golf balls" noted in the other cases. The same organism was isolated from the lesions by each of us, working independently, when inoculated in maltose agar, and was found to grow profusely with at first a downy white growth, followed by a greenish pigmentation becom-

ing brown and finally black next to the media, to which it becomes very adherent. After three or four weeks, it has the appearance of a black mold. After ten days or two weeks, large numbers of the typical club-shaped, pigmented, septated spores developed, often growing in chains especially about the edge of the mycelium, and in part accounting for the dark pigmentation of the mold. A suspension of these spores, when inoculated subcutaneously in the ear of a rabbit, produced sluggish abscesses, which attained a maximum development at the end of three weeks and then slowly subsided. The same organism was isolated in pure culture repeatedly from the pus of these abscesses up to six weeks after the inoculation. At the end of one week, a dense mycelial network with few spores could be seen in the pus. Later, the spores become more frequent and the mycelium scanty. A control inoculation of *Aspergillus glaucus*, made simultaneously, disappeared in two days, leaving no trace of its location.

COMMENT

The identification of this organism and its relationship to the lesions in the lungs cannot be discussed in the present status of our investigation. There is much confusion in the classification of the species of this group of fungi.[3] Two plant pathologists have called it some species of *Alternaria*. From a study of Castellani's[4] classification of fungi imperfecti, it apparently belongs to the suborder of *Thallosporalle*—the *Arthrosporiae*, which include the *Trichophyton* family. In fact, at first we felt that it was a trichophyton. It is of interest to note that the fungus was found in the lesions of the human lung only in the spore form, no mycelial network having been recognized. Furthermore, it was found in three cases of chronic pulmonary infection in which a clinical diagnosis of tuberculosis was considered, but in the lesions of which acid-fast organisms were found only after considerable search. Accordingly, it probably represents a secondary infection. It should also be noted that typical miliary tubercles were not found in any of the pulmonary lesions.

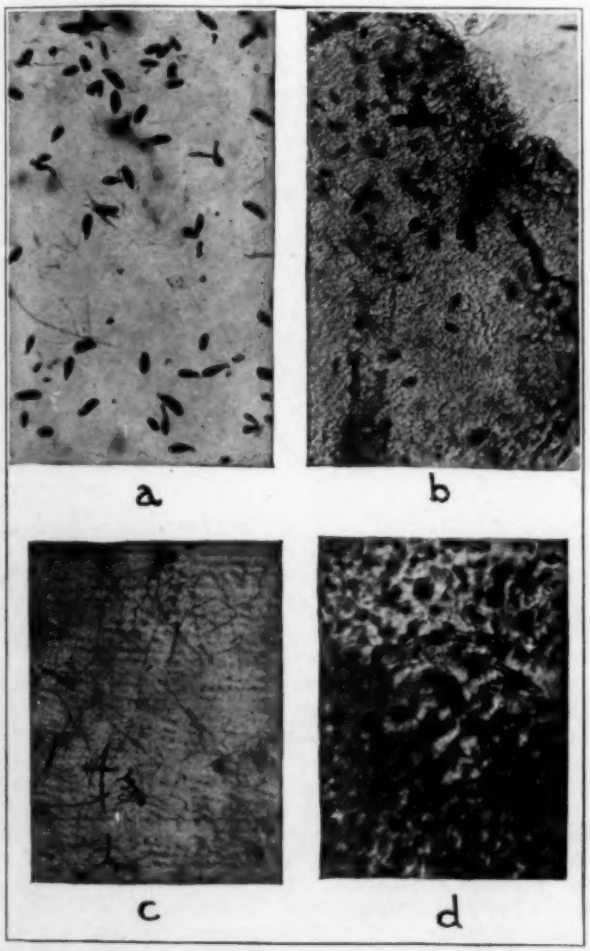

Fig. 3.—Mycelium and spores: *a*, suspension of spores from a culture 4 weeks old; × 80; *b*, mycelium from pus of a subcutaneous abscess seven days after inoculation with *a*; × 80; *c*, mycelium in lung of rabbit seven days after inoculation with *a*; × 320; *d*, mycelium and spores from a subcutaneous abscess four weeks after inoculation; × 70.

Fig. 4.—Granulomatous lesion in ear of rabbit nine days after inoculation; the arrow indicates a spore in the center surrounded by leukocytes; slightly reduced from a photomicrograph with a magnification of 260 diameters.

It is of considerable significance that localized lesions were produced with this organism in rabbits, and that a mycelium developed in these lesions from inoculations of a suspension of spores. At the same time the histologic study of the lesions in the rabbit showed a granulomatous reaction not unlike that associated with infection with *Actinomyces*. These findings indicate a low grade pathogenicity to this species of *Alternaria*, and suggest that certain species of this group may produce disease in animals as well as in plants.

3. Elliott, J. A.: Taxonomic Characters of the Genera Alternaria and Macrosporium, Am. J. Botany **4**: 439.
4. Castellani, Aldo: Medical Mycology, J. Trop. Med. & Hyg. **27**: 49 (Jan.) 1924.

Venereal Disease in Switzerland.—Switzerland has presented a statistical study of venereal diseases in which reports were received from 75 per cent. of practitioners and from 95 per cent. of the specialists, showing the number of cases encountered in the year ending Sept. 30, 1921. Three appeals were made to physicians, first individually, then by the state public health service and finally through the medical organizations. The report shows 4.02 infected persons per ten thousand population; 83 per cent. were in cities; 10 per cent. in villages; males formed two-thirds of the total; married men 31 per cent. and married women 40 per cent. The infection, male and female, was from the parents in 2 and 8.2 per cent. of the cases; betrothed, 3 and 10.8 per cent.; wife and husband, 4 and 30 per cent.; prostitutes, 40 per cent. Infection from prostitutes formed 75 per cent. of the cases in men from other countries but only in 33 per cent. of the cases in natives. During the three years since this collective inquiry, the number of cases of syphilis has shown a marked decline.

GASTROJEJUNOCOLIC FISTULA

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What we expect to find and the condition that exists inside the abdomen may be decidedly different. This is the more striking after previous operation in the peritoneal cavity. In the normal, healthy state there are the stomach, the more solid viscera and the small intestines, intricately coiled and folded, gliding softly and maintaining their integrity. But disease or trauma distorts the arrangement, and leaves adhesions to alter function.

A not uncommon result of gastro-enterostomy is the fixation of the transverse colon in the vicinity of the anastomosis. Should the cause of the original ulceration not be removed, new ulcers may occur in spite of the drainage of the gastric contents provided for by the operation. The outcome of such an ulcer perforating the walls of the jejunum and the colon at the site of fixation is a gastrojejunocolic fistula.

Early recognition and intervention offer fair chances for recovery. Delay or failure to recognize the condition is usually disastrous.

Shortly after the publication of a description of the condition by C. H. Mayo,[1] such a case came under my care. The patient had been under the care of several other physicians prior to this, for at least two years.

Fistula, and barium in stomach, immediately following rectal instillation.

Dr. Mayo found six cases of gastrojejunocolic fistula among 101 gastrojejunal ulcers. The postoperative interval in his series was from five weeks to nine and one-half years. The symptoms included diarrhea, wasting and fecal vomiting. He stated that the fistula might be intermittently patent or closed, and that the pain was lower than is found in cases of duodenal ulcer. The treatment advised was pyloroplasty.

The postoperative interval in my case was eight years. The symptoms correspond to those already quoted, with pain in the lower abdomen, apparently more in the right side in the region of the cecum.

REPORT OF CASE

P. L., a veteran, formerly an electroplater, aged 35, born in Denmark, was admitted to the hospital, Feb. 13, 1922, with the diagnosis of chronic enteritis. He had been discharged from the hospital the preceding June with the same condition, improved. There had been no let up in the diarrhea from that time. For the last few days, he had had six or seven movements a day. He had a decided pain in the right lower abdomen, and general abdominal soreness. He said that he had passed from the bowel food that was eaten thirty-five minutes before. He sometimes relieved the pain by eating solid food, but for the last year he had controlled the pain with opiates. He said that a proctoscopic examination made elsewhere, a year and a half before, showed a "highly inflamed intestinal wall, bleeding to the touch of the finger." His appetite used to be enormous, but three weeks before admission he lost it. Since he left this hospital a year before, he had been under treatment elsewhere without getting relief. He had lost a great deal of weight since then.

A week after the present admission, the patient came under my care. The history of from six to seven bowel movements had been verified. He continued to complain of pain in the abdomen. The urine had been found normal. The feces had been examined and reported negative for blood, parasites and ova, and tubercle bacilli. The hemoglobin was 65 per cent.; red blood corpuscles, 3,800,000; white blood corpuscles, 6,200; polymorphonuclears, 75 per cent.; lymphocytes, 21 per cent.

A gastro-enterostomy had been performed on the patient at Copenhagen eleven years before. He was free from trouble for four years following this operation. Then, he suddenly began having hemorrhages from the bowel; he vomited and had some pain. At times he was in coma. He was again operated on. He recovered from the operation, and remained well for four years more. He was then sent to France where, while doing intelligence work to which he was detailed because of his knowledge of the German language, he contracted diarrhea. The hardships of the campaign and the mental strain taxed his strength and brought on this new complication.

The report of Dr. Mayo was fresh in my mind, and this case seemed to be similar. But there was some delay in obtaining a roentgenogram of the colon, and on the strength of the opinions of those who had previously had charge of the case, it was decided to try a therapeutic test for dysentery, February 23, a liter of kerosene was injected into the rectum, to be held for thirty minutes. After ten minutes, the kerosene was vomited. This rather convinced all the consultants of the presence of fistula. On the 27th, the diagnosis was confirmed by a roentgenogram, which showed the fistula connecting the stomach and the colon. Four days later, the patient reported that he had rested well, that he had eaten a good lunch of fish and potatoes, and that he had passed a formed stool. He was weak, however, and subsequent efforts to get nourishment to his system proved futile. He was buoyed up for a while by a faint ray of hope that a spontaneous closure would take place. This failed to happen, and he continued to get no better. He finally died of starvation.

At postmortem the old anastomosis was found to be patent, but the small intestine had ceased to function because of a much more decided short cut that subsequent ulceration and perforation had produced. The food had been passing from the stomach to the jejunum and then to the transverse colon, not going through the coils of the small intestine at all. The colon had become adherent to the jejunum over the area where the original anastomosis had been done. Ulceration and perforation through these walls had completed the proc-

1. Mayo, C. H.: Gastrojejunocolic Fistulas Following Gastro-Enterostomy, abstr. J. A. M. A. 78: 380 (Feb. 4) 1922.

ess. There were unhealed ulcers on the jejunal side near its junction with the colon. There was an old patent anastomosis between the lower part of the jejunum and the ileum.

COMMENT

The lesson to be learned from this case is that early diagnosis is almost essential to successful treatment. In this connection, I would urge the importance of a single roentgenogram of the colon. Several roentgenograms made after bismuth meals and bismuth series had been part of the study of this case. The roentgen-ray interpretation of these was useless, whereas a single roentgenogram of the colon would have told the story in a few words.

LEPROSY

REPORT OF A SPORADIC CASE DEVELOPING IN PENNSYLVANIA *

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SHENANDOAH, PA.

In November, 1923, a case of nodular leprosy came under my observation at Shenandoah, Pa. The rare occurrence of this infection in the United States and especially in Pennsylvania, the liabilities of error in the diagnosis of sporadic cases, and the importance of recognizing such cases, prompts me to make this report.

REPORT OF CASE

History.—Mrs. M. F., aged 26, a housewife, who had been married three years and had never been pregnant, complained of choking sensations, loss of voice, and tubercles on her face. The family history was irrelevant; but the patient stated that she did not know of any of her relatives ever having had leprosy. The patient had been somewhat migratory. She was born in Portugal, and resided there until 13 years of age, when she left for Brazil. She worked as a domestic in Brazil until 1920, when she left for New York, arriving in January of that year. She remained there but a short time, when she left for Panama, residing there until October, 1922, when she again returned to New York, coming to Shenandoah in May, 1923.

About seven months before I saw her, she began to have headaches and chills and noticed blebs on her face. These at first had fluid, but later they became hard. The patient had some areas of hyperesthesia on both arms and legs; she lost weight rapidly, and later complained of choking sensations which caused her to seek my advice.

Physical Examination.—The temperature was 99.1 F.; the pulse, 78, and the respirations, 18 a minute. The face had numerous tubercles, ranging in size from a pinhead to a lima bean. One of these small tubercles, about the size of a small pea, was infiltrated in the left eyelid. The color of the tubercles was a bister, while the larger ones had a reddish hue and appeared somewhat waxy. There were small amounts of pigment at the borders of the tubercles, and the left eyebrow had disappeared in its outer half. Her expression was dull and listless, and her voice so husky that at times it became almost absent. There were two eroded areas on either side of the nasal septum. There was a scattered grayish pigment on the anterior surface of the lower extremities, with more on the right side than on the left. On the left leg, there were patchy spots of lighter color interspersed with the pigment. It seemed as though the latter was fading. The hands were swollen and had erythematous lesions. The nails on the fingers were somewhat thickened; the left thumb nail and the right great toe nail had undergone destruction.

This clinical picture, with the history of the case, made me suspect leprosy. I made a tentative diagnosis of leprosy, and arranged for an immediate laboratory study of the case. After the lepra bacilli were found in the tubercles, I immediately reported the case to the local board of health, which in turn reported it to the state department of health. The state department of health ordered an absolute quarantine, and at once took up the case with the federal government for deportation proceedings.

Laboratory Findings.—Specimens of the blood, the tubercles, and nasal smears were ordered sent to the state laboratories at the University of Pennsylvania, Philadelphia. The laboratory reported [8] that examination of the spread made from the nasal secretion showed the presence of epithelial cells, leukocytes and some of the common bacteria found in the nasal mucosa; also the presence of acid-fast bacilli, which were occasionally arranged in pairs and bundles resembling the bacilli of leprosy. Spreads from the material collected from the nodule showed the presence of acid-fast bacilli in large numbers, arranged in pairs and bundles resembling the lepra bacillus; also the presence of lepra cells in fair numbers which were pathognomonic of leprosy. The diagnosis was leprosy.

Fig. 1.—Appearance of patient: numerous tubercles on face, with one infiltrated in left eyelid; loss of outer half of left eyebrow; broadening of nose; swollen hands, with dry, cracked skin, and thickened finger nails, with loss of left thumb nail.

DIFFERENTIAL DIAGNOSIS

One of the most frequent stumbling blocks in the diagnosis is syphilis; especially is this true when the patient manifests a positive Wassermann reaction. The blood Wassermann reaction of this patient was positive, while the blood Wassermann reaction of her husband was negative. Goodpasture [9] has recently called atten-

* Owing to lack of space, this article is abbreviated in THE JOURNAL by omission of a discussion of the distribution, etiology and bacteriology of leprosy. The complete article appears in the author's reprints.

8. Laird: Report from the state laboratory, University of Pennsylvania, Philadelphia, December, 1923.

9. Goodpasture, E. W.: Complement Fixation in Treated and Untreated Leprosy, Philippine J. Sc. **22**: 425 (April) 1923; abstr. J. A. M. A. **81**: 72 (July 7) 1923.

tion to the fact that 60 per cent. of lepers who are not on the oil treatment show a positive Wassermann reaction, while 84 per cent. of the same group show a positive reaction to the Wassermann test when placed on the oil treatment. However, the finding of the acid-fast bacilli together with the lepra cells is conclusively diagnostic. Morphea, lupus and mycosis fungoides can readily be eliminated in doubtful cases by laboratory study.

TRANSMISSION AND INCUBATION

Some writers [10] stress the transmission from mother to fetus; others, the migratory habits; there are still others who lean only to transmission by contagion. Muir [11] asserts that the habits of lepers and of those who come in contact with them are largely responsible for transmission, especially in house and bed infections. The body resistance is lowered by concurrent or intercurrent diseases, constipation, unsuitable diet and many other causes, and it is commonly in connection with one of these exciting causes that leprosy first shows itself.

Fig. 2.—Pigmentation of the lower extremities, more marked on the right leg, with loss of right large toe nail.

Notwithstanding the variation of opinion in regard to transmission, it seems that all are agreed on the long incubation period. Hollopeau states that it may be as long as thirty-two years. In all likelihood, this patient contracted the disease in Portugal. Hansen has called attention to the fact that none of the children of 170 lepers who from time to time migrated to North America have become diseased. The indirect evidence of transmission is more significant. Manson [12] cites the case of an Irishman who acquired his disease in the West Indies. On his return to Ireland his bed was shared by his brother, who sometimes wore the leper's clothes. The brother, who had never been in a foreign country, became, in time, a leper. In this case communication from one to the other is practically demonstrated.

Currie [13] suggests the possible transmission by insects, as these parasites retain the bacilli in their intestinal tracts for several days.

Arning [14] inoculated a criminal in the Hawaiian Islands with a leprosy nodule, and the inoculation was followed by true leprosy, which terminated fatally six years later. The experiment, however, did not exclude the important source of error involved in the fact that the subject was the native of a country in which leprosy was common, that he lived among lepers, and that his parents were lepers.

CLINICAL DESCRIPTION

The course of the disease in this case was characteristic of that described by most writers. The onset was insidious after a probable prolonged incubation period. There were visible mascular leprosy of the hands; the tubercular or nodular leprosy of the face; the loss of the outer half of the eyebrow; the broadening of the nose; the thickening of the finger nails, or the beginning of the structural changes or the so-called lepra mutilans. In addition to the aphonia present, the patient had several severe asphyxiation attacks, due to an edema of the glottis and the laryngeal involvement. After these attacks, there was a very free flow of saliva, faintly blood tinged. There were no further laryngeal symptoms after the administration of the oil was started.

TREATMENT

Absolute quarantine was ordered by the state department of health, pending deportation to Portugal (her husband not being naturalized) by the federal Immigration Bureau. Besides segregation and the usual hygienic treatment, she was given, by intramuscular injection, chaulmoogra oil in the dose of 0.5 c.c. weekly, and each dose was increased by 0.5 c.c. This is the treatment carried out at Culion.[15] The treatment was continued until the maximum of 4 c.c. was reached. Calmette uses an antivenene in the dose of from 20 to 30 c.c., subcutaneously, and reports remarkable results in a few cases.

In Calcutta, they use a fatty principle extracted from cultures of a leprastreptothrix combined with chlorbenzene, called nastin.

The treatment in this patient showed no results except an arrest in the laryngeal symptoms. There were no asphyxiation attacks nor any blood tinged saliva after the oil treatment was started. The oil seemed to act almost instantly on the laryngeal symptoms.

After conducting a hearing in Shenandoah, Pa., the United States Emigration Bureau ordered the woman deported to Portugal, Jan. 29, 1924.

10 North Jardin Street.

10. Collins and Liebmann, cited by Dieulafoy: Textbook of Medicine, Ed. 2, Paris **2**: 1826, 1912.
11. Muir, E.: Transmission of Leprosy, Indian M. Gaz. **58**: 572 (Dec.) 1923.
12. Manson: Tropical Diseases, London, 1900, p. 448.
13. Currie: Pub. Health Bull. 39, Washington, D. C., September, 1910.
14. Arning: Arch. f. path. Anat. **134**: 319, 1893.
15. Lara, C. B.: Clinical Aspects of Leprosy Treatment at Culion Leper Colony, Philippine I. M. A. J. **3**: 227 (Sept.-Oct.) 1923; abst. J. A. M. A. **82**: 159 (Jan. 12) 1924.

Venereal Disease in Siam.—Two very local conditions that are distinctly important contributing factors to the spread of venereal diseases are the large numbers of floating Chinese and the comparative lack of poverty in Siam. While in China and other countries famine often compels parents to dispose of the children, with special reference to the females, to slave dealers and others, and in that way contribute to the spread of the plague, it is easy to understand how in Siam the opposite state of affairs may have a tendency to complicate the problem.—R. W. Mendelson: *Am. J. Pub. Health* **13**:828 (Oct.) 1923

A NEW OPERATION FOR PROLAPSE OF THE RECTUM

PRELIMINARY REPORT

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NEW YORK

There is no operation, so far as I know, that is wholly satisfactory for prolapse of the rectum. I will not discuss the multitudinous views held by various authorities as to the cause of prolapse, as they are too well known to need description. The number of operations that have been suggested is sufficient evidence to prove that no special one is entirely acceptable.

It would be difficult to imagine a prolapse associated with a very short sigmoid; therefore we must assume

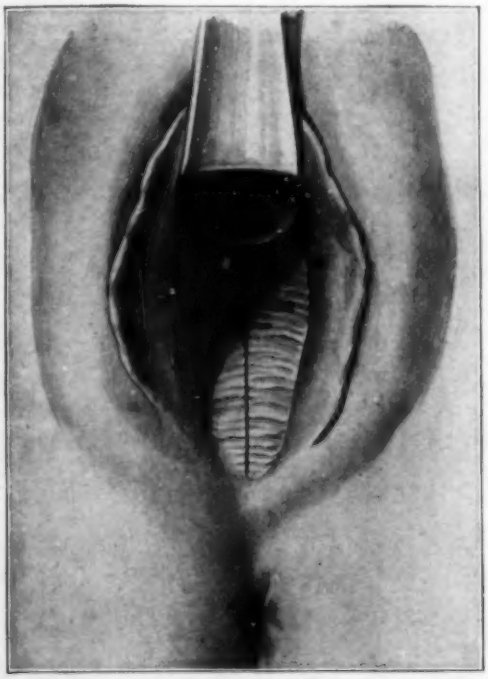

Fig. 1.—Speculum in place, exposing cervix and showing line of incision through vaginal wall.

that a long sigmoid is the first requisite to bring about this condition. I do not deny, as has been pointed out by Quénu and Moschcowitz, that a deep culdesac is a predisposing factor; but there are other anatomic factors besides a long sigmoid that enter into the mechanism of prolapse; namely, the loose connective tissue at the peritoneal reflection, the lateral ligaments and the levator muscle, all of which help to support the rectum. As has been pointed out by Todd, the lateral ligaments are the chief supports of the rectum and not, as has been supposed, the levator muscle. Any one familiar with the operation for extirpation of the rectum can substantiate the fact that mobilization of the bowel, even after the severing of the levator, is impossible until the lateral ligaments and the loose bands of connective tissue have been severed. Even then, one has to cut the peritoneum of the sigmoid before bringing the bowel outside the anal canal.

Todd has demonstrated also that the blood vessels and nerves in the lateral ligaments are convoluted, and that, when stretched, they are about twice as long as the lateral ligaments, so that, as the ligaments are stretched, the convolutions gradually straighten out, permitting the bowel to come down, without strain on the blood vessels and nerves. Any operation, to be satisfactory, should be anatomically correct.

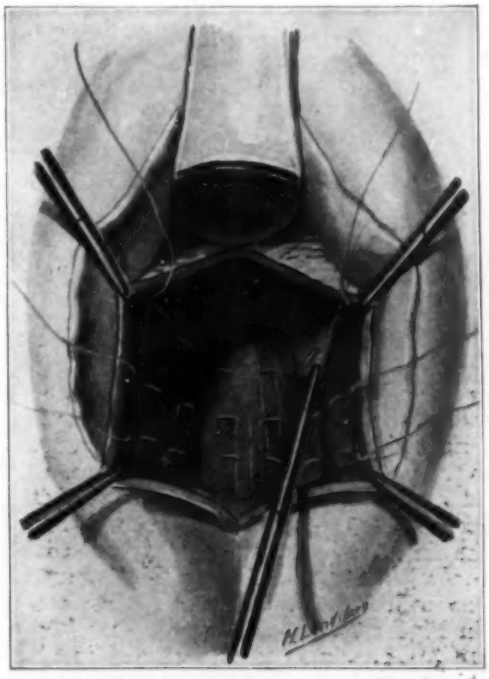

Fig. 2.—Forceps pulling on upper end of lateral ligament, and the method of introducing sutures through the lateral ligament and rectum.

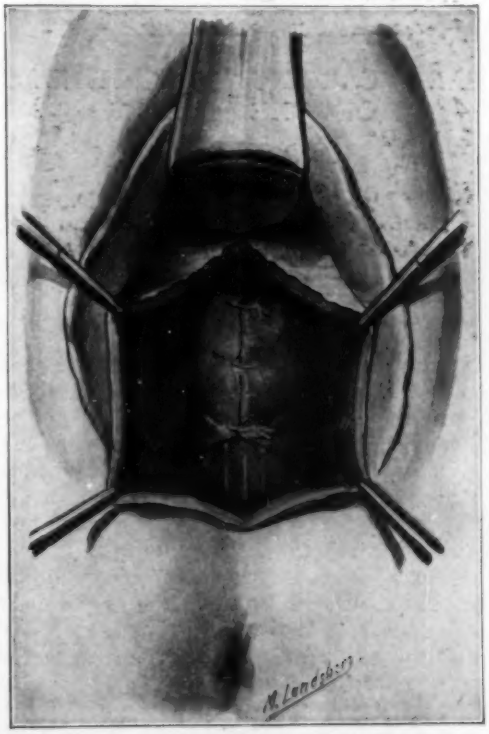

Fig. 3.—Final stage of operation, with the sutures tied and the rectum in place.

It would seem, therefore, that resection of the sigmoid, with shortening of the lateral ligaments, should be the operation of choice in prolapse of the rectum. I have not combined these two procedures in the opera-

tions that I have so far performed, but in two cases of long standing prolapse in which the patients had previously had many operations, the one I am about to describe proved very satisfactory. These women had not only a prolapse, but also such a marked loss of sphincteric tone that it seemed as though even if the rectum was replaced, there must still remain incontinence. Much to my surprise, these patients have regained complete control; so complete, in fact, that they can retain an enema.

TECHNIC OF OPERATION

An incision is made in the posterior vaginal wall, from the cervix to the transversus perinei muscles. The vaginal wall is dissected free from the rectum, and the lateral ligaments are exposed. By passing the finger just below the peritoneal reflection to the left of the rectum, one can lift the left lateral ligament. By means of a catgut suture two or three reefs can be taken in the ligament, and the needle brought out close to the rectum. The needle is then passed through the muscular wall of the rectum, brought out, and again inserted on the right side of the rectum, and then brought out close to the right lateral ligament. The same process is repeated on the right side with the same number of reefs taken in the right lateral ligament. About an inch from the first suture, the second suture is inserted in the manner just described, and a third suture similarly placed an inch below the second. This is well illustrated in Figure 2.

Figure 3 represents the sutures tied in place.

By this method the lateral ligaments are shortened and the bowel is immobilized in its natural position.

The vagina is closed by means of a catgut suture.

205 East Sixty-First Street.

PRIMARY CARCINOMA (EPITHELIOMA) OF THE URETER

REPORT OF CASE

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AND
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Primary carcinoma of the ureter is a rare pathologic occurrence. Still rarer is its diagnosis in life, because a large percentage of the cases reported in the literature were diagnosed at necropsy. In 1921, a very extensive review of the literature was made by Judd and Struthers,[1] at which time they found that twenty-five cases of primary malignant tumor of the ureter had been previously reported, not including their own case. Up to March 7, 1924, the date of a personal communication from Dr. W. F. Braasch, the case reported by Judd and Struthers was the only case of primary epithelioma of the ureter in which an operation had been performed at the Mayo Clinic.

We have been able to find only two additional cases in the literature. Knack[2] reported a case of papillary carcinoma of the left ureter in a man, aged 73, in which the diagnosis was made at necropsy. Quinby[3] reported a case, that of a woman, aged 40, on whom he operated. The left ureter contained a tumor which, when examined pathologically, proved to be "probably" malignant.

If we accept these reviews as authentic, there have been, up to the present time, twenty-eight cases of primary carcinoma of the ureter reported in the literature. We believe, therefore, after an exhaustive search, that the following is the twenty-ninth such case to be reported.[4]

Fig. 1.—No. 5 catheter to the point of obstruction; the opaque solution returned to the bladder.

SYMPTOMS

Judd and Struthers [1] state that:

> The principal symptoms are hematuria, swelling and pain, the same as with tumor of the kidney. The hematuria is usually the first symptom and may not be associated with pain. It generally comes on without cause; the blood is profuse and thoroughly mixed with the urine. If there is clot formation, the pain may be intense and colicky in character. Usually there is a vesical disturbance, evidenced by frequent micturition. The ureteral clots passed under these circumstances are very characteristic. They have the appearance of angleworms and sometimes are of great length.

In our own case, hematuria was the outstanding symptom. The patient was not in pain except just prior to her entrance to the hospital, at which time there was difficulty in urinating, with pain in the bladder. After she passed several clots, the pain as well as the hematuria disappeared.

DIAGNOSIS

The first important step in the diagnosis is to rule out calculus by a roentgen-ray examination of the complete urinary tract. The next important procedure is to locate the source of the bleeding, or, if there is no

1. Judd, E. S., and Struthers, J. E.: J. Urol. **6**: 115 (Aug.) 1921.
2. Knack, A. V.: A Case of Papillary Carcinoma of the Left Ureter, Deutsch. med. Wchnschr. **44**: 982, 1918.
3. Quinby, W. C.: Tumors Primary in the Ureter, J. Urol. **4**: 439 (Oct.) 1920.
4. Since this article was prepared for publication, an additional case of primary carcinoma of the ureter has been reported by Kretschmer, H. L.: Surg., Gynec. & Obst. **38**: 47 (Jan.) 1924.

bleeding at the time of cystoscopy, a carcinoma in the ureter will generally begin bleeding if an attempt is made to pass a catheter. In our case, this is precisely what occurred. If any obstruction is met in the ureter, it is well to leave the catheter at this point and make a ureterogram. The shadow obtained will usually show the presence of a mass with hydro-ureter above it; and if calculus has been ruled out previously, the evidence is strongly in favor of tumor.

A differential function test is also valuable at this time. In our case there was no function from the right side, and the left side showed the function to be perfectly good.

TREATMENT

As set forth by Judd and Scholl,[5] a complete nephro-ureterectomy should be performed in all cases of definite ureteral carcinoma. In our case, the patient being a very good subject, this procedure was done, as illustrated by Figure 3.

REPORT OF CASE

History.—A housewife, aged 42, referred by Dr. Anna Warnecke, was admitted to the urologic service of the hospital, Feb. 2, 1924, complaining of bloody urine and general weakness. She was not in pain.

Fig. 2.—Tumor in the lower portion of the ureter, with hydro-ureter and hydronephrosis above it; No. 6 catheter was used.

For the last year she had noticed, at intervals of about every three weeks, attacks of hematuria with the passing of fairly large clots of blood in the urine. Occasionally associated with the hematuria were frequency and urgency of micturition, but between the attacks there had been very few, if any, symptoms referable to the bladder. Her past history is of little interest, except that, eleven years before her admission to the hospital, a salpingectomy and an appendectomy were performed, from which, she states, there was never noticed much benefit. The family history was negative for similar conditions, carcinoma and tuberculosis.

5. Judd, E. S., and Scholl, A. J.: Symposium on Surgery of the Kidney and Ureter, Atlantic M. J. **27**: 331-335 (March) 1924.

The day prior to her entrance to the hospital, she had a very severe attack of pain in the region of the bladder, together with frequency and urgency of micturition and very bloody urine, at which time Dr. Warnecke strongly advised her to enter the hospital. By the time she had entered, the symptoms had entirely subsided, and there was no macroscopic blood in the urine.

Physical Examination.—The patient was a pale, rather poorly nourished woman, apparently very weak from her illness. The general examination was negative. The systolic blood pressure was 120; diastolic, 80. The abdominal examination showed the scar of a midline incision. A somewhat enlarged right kidney could be definitely palpated. It was also moderately tender to palpation. The tenderness could be elicited downward along the course of the ureter.

Fig. 3.—Appearance of removed specimen, showing the area containing the tumor, the hydro-ureter and the hydronephrosis.

The blood Wassermann reaction was negative in both antigens.

The urinalysis was negative, except for the presence of a few red blood cells.

Following the usual preparation with a 2 quart (2 liter) soapsuds enema, the patient was sent to the roentgen-ray department for a plain roentgenogram of the complete urinary tract. Dr. Achilles reported negative findings. The patient was then kept under observation for a few days. Cystoscopy was delayed, for the main reason that there was no bleeding; but after waiting a week, cystoscopy was done, February 9, at which time a normal appearing bladder, including a normal appearance of both ureteral orifices, was observed. Both ureters were catheterized. It was noticed that on the right side, at a point about 6 or 7 cm. up, definite obstruction was met, and active bleeding from that side could immediately be seen. A function test done at this time showed excellent function from the left side, with the appearance of the dye in six and one-half minutes, but absolutely no appearance of the dye from the right side. A ureteropyelogram was attempted, but the solution (12.5 per cent. sodium iodid) all returned into the bladder (Fig. 1). This catheter, a No. 5, was withdrawn, and a No. 6 catheter was reinserted into the ureter. Definite obstruction was met at the same point. The second attempt resulted in a good ureteropyelogram (Fig. 2). This shows a very much dilated

Fig. 4.—The growth in the ureter.

ureter immediately above the point of obstruction, although the ureter itself at this point did not fill with solution. The solution may be seen as a distinct ring shadow, apparently around a mass. We felt quite certain from the findings in the original plain picture that we were not dealing with a calculus. Up near the ureteropelvic junction there was a definite Z shaped kink of the ureter, and just beyond it there were less distinct shadows of a hydronephrosis.

The diagnosis of ureteral obstruction, probably tumor, and secondary hydro-ureter and hydronephrosis was made, and

Fig. 5.—The sectioned kidney, showing marked hydronephrosis, but no apparent metastatic areas.

the patient was referred to the surgical service for nephrectomy and ureterectomy.

Operation and Result.—Under ether anesthesia, February 12, a long curved incision was made from the costal border downward to below the anterior spine of the ilium. On exposure, the kidney was found distended. The pelvis of the kidney was almost as large as the kidney itself. An immensely dilated and kinked ureter was dissected out, down close to its junction with the bladder. As this carried the dissection into what appeared to be a normal ureter, ligation was done, and the specimen was removed.

Examination of the growth in the ureter showed it to be a mucous membrane epithelioma (carcinoma), with no evidence of metastasis in either the kidney or the ureter above it. The pathologic diagnosis was made by Dr. Harold Robinson of our laboratory, and corroborated by Dr. B. F. Simpson of Buffalo.

The patient made an excellent recovery. She was discharged from the hospital, March 25, with the wound completely healed.

Schnirel Building.

Child Health.—No efforts for the health of mother and child can be complete which fail to take into account the conditions under which they live. There is no purpose in urging recreation and physical development in a town if there is not sufficient space for play, nor the right facilities and guidance in the schools. We should not urge the drinking of milk and water without at the same time being sure that the supply of both is pure and wholesome. In short, a community must strive for healthful surroundings, pure food and the institution of those measures which have to do with the control of communicable disease.— C. Dinwiddie, *Hosp. Social Service* **8**:144 (Sept.) 1923.

Clinical Notes, Suggestions, and New Instruments

AN UNUSUAL FRACTURE OF THE ELBOW

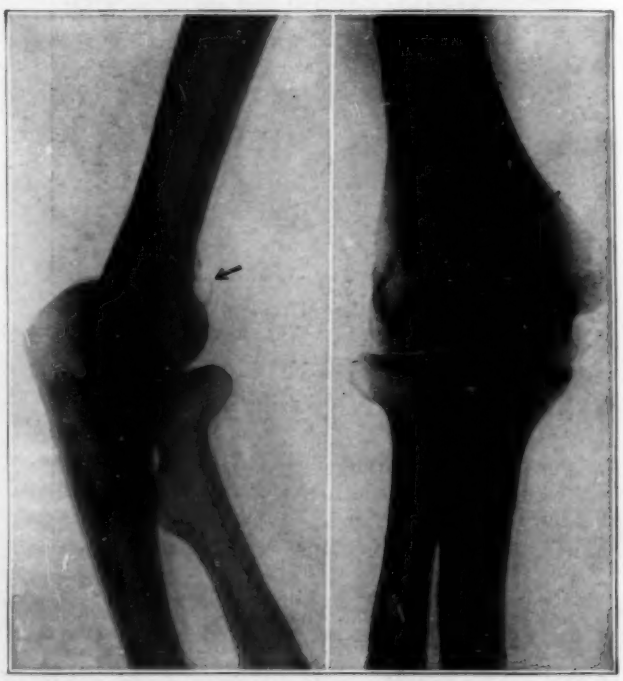
HAROLD SWANBERG, M.D., QUINCY, ILL.

Recently an unusual fracture of the elbow came under my observation:

E. B., a man, aged 42, a machinist, was referred to me by Dr. F. T. Brenner of Quincy for a roentgenographic examination of the right elbow. The clinical diagnosis was a possible fracture of the head of the radius. The patient had always enjoyed good health. There had been no previous trauma; both the elbows were perfectly normal in every way before the present injury, and there was no history of rheumatism or neuritis. While working on a boring mill he was tightening a bolt with a wrench, when the wrench suddenly slipped while he was pushing on it with great strength. As a result, his arm was forcibly extended, which extension was immediately followed by marked pain in the elbow.

On examination, there was marked tenderness anteriorly over the distal extremity of the humerus, but no other localized tenderness was present. There was complete flexion of the elbow, but extension was limited on account of pain.

A roentgenogram made a few hours after the injury showed that there was a perforating fracture of the olecranon and coronoid fossae of the humerus. The olecranon fossa appeared as if it had been drilled out by a trephine, the fragment being displaced anteriorly into the coronoid fossa. No other fracture was present. Evidently, at the time of the extreme extension of the forearm, the tip of the olecranon process of the ulna was forcibly pushed into the olecranon fossa of the humerus, causing the perforating fracture.



Perforating fracture of olecranon fossa.

While complete transverse fractures of the lower extremity of the humerus, including the olecranon fossa, are common, I have never before seen a case in which the olecranon fossa alone was fractured.

A roentgenogram was made of the opposite elbow for comparison, but it was normal. The treatment given in this case by the attending physician was immobilization in a plaster cast, with the elbow at a right angle for about six weeks.

Seven months after the accident, the patient had some limitation of both flexion and extension in the affected elbow

joint, but no pain. He had a fairly useful arm, although he complained of its not being as useful or as strong as before the accident. He was pursuing his former occupation, but doing lighter work. Another roentgenogram was made, and new bone formation could distinctly be seen in the coronoid fossa.

731 Hampshire Street.

DERMOTOME

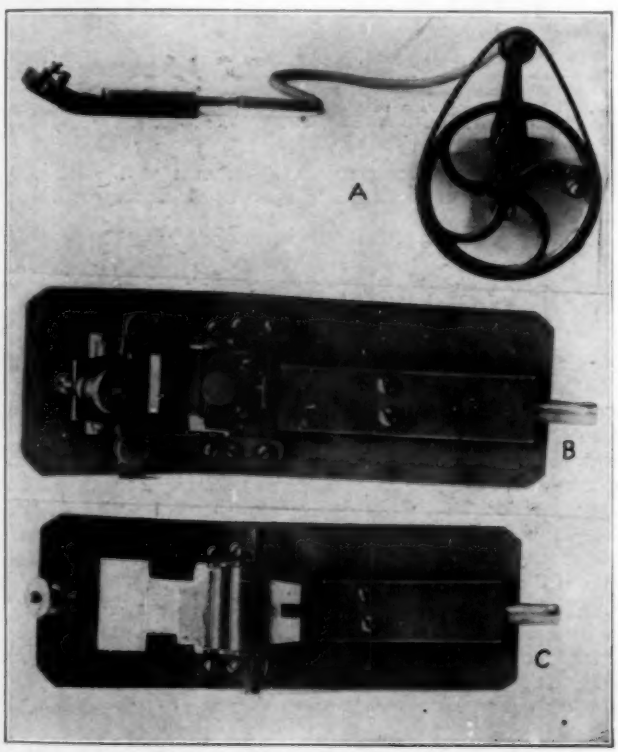
G. L. HAGEN, M.D., MINNEAPOLIS

In the surgical operation of transplanting skin from one person to another, it has been customary to use a razor in cutting the skin from the donor. Difficulty is experienced in cutting it of uniform thickness, the razor blade having a tendency to turn in the hand and cut deeper in one place than in another.

It is desirable that the transplanting operation be performed without the flow of blood from the donor, and this can hardly be avoided when a razor is used, as uneven cuts are made in the flesh.

The object of my invention is to provide an instrument by means of which a thin shaving of flesh may be removed of the desired thickness, with provision to prevent accidental deep cutting and the consequent flow of blood. A further object is to provide an instrument by which the flesh may be cut and transplanted much more rapidly than the ordinary methods heretofore employed.

At *A*, in the accompanying illustration, the instrument is assembled. The power wheel can be attached to any table by means of a clamp and set screw, and the flexible cable permits the dermotome to be removed by a slip joint, so that



Dermotome.

the skin may be carried to the receptor. *B* shows the upper part, which contains the rollers in a hinged frame locked in front when adjusted to the right thickness of tissue. *C* shows the hinged frame containing the adjustable rollers tipped back, leaving an opening and exposing the cutting knife, which holds the tissue so that it can easily be picked up and spread out on the receptor with a needle. The width of tissue cut is 17 cm. and the length may be as desired.

1519 East Franklin Avenue.

PULSATING ABSCESS OF CHEST WALL SIMULATING ANEURYSM *

GEORGE KAHN, M.D., BOSTON

The diagnosis of aneurysm is so easily and so certainly made when one sees a pulsating area of bulging in the precordial region, and with such a high percentage of later confirmation, that such a case in which the diagnosis of aneurysm was wrong is worth reporting.

Fig. 1.—Lateral view of chest, showing prominent bulge in the precordial region.

A colored hod-carrier, aged 27, ten months before entry began to have severe, steady pains in the lower right back and axilla, at times also in the left lower axilla. With this there was loss of appetite and weight, no cough, and no definite history of fever. He was admitted to the Boston City Hospital and was discharged slightly improved two months later with a questionable diagnosis of nephrolithiasis of the right kidney, no evidence for tuberculosis having been made out. He continued in this condition under his local physician's care without improvement until two months before admission, when he began to have severe, steady pains over the lower precordium, keeping him awake at night. Simultaneously he noticed a small pulsating area of bulging come on over the lower precordium, and a smaller, nonpulsating "bunch" in the back. All symptoms progressively increased, and fever became more prominent. The past history was entirely negative; the patient stated that there had been no venereal disease or trauma.

The patient was emaciated. Examination was negative except for the local findings. In the precordial region from the upper border of the third rib to the lower border of the fifth rib, extending 6 cm. to the left and 4 cm. to the right of the midsternum, and elevated 1.5 cm. above the general plane of the chest, was a localized area of pulsation, pulsating synchronously with the heart and with an excursion of about 0.25 cm. Palpation suggested a pulsating pocket of fluid just below the superficial structures of the chest wall. There was definite fluctuation, there was no palpable thrill, the pulsation was not definitely expansile and, on auscultation over it, only the heart sounds could be heard. There was no induration around this pulsating mass, and it was impossible to feel anything through it because of exquisite local tenderness. With pressure locally, all the pulsations disappeared;

* From the Boston City Hospital.

and, as the patient sat up, the bulging became markedly more prominent. There was nothing abnormal about the size of the heart or the quality of its sounds. Over the twelfth thoracic and first lumbar vertebrae there were two separate, small, rather deep, fluctuating areas, side by side, each about the size of a nickel.

The patient's temperature was septic, rising to 101 or 102 F. The white blood cell count was 9,000, and otherwise the blood work was also negative, including two negative Wassermann tests. The urine was normal. The first roentgenogram showed a large, pulsating opacity above and behind the heart, on which a tentative diagnosis of aneurysm was returned.

The visiting physician, Dr. F. W. Palfrey, reasoned that the force of the pulsation, and the tension of the fluid within the pulsating body, seemed to be less great than would occur in aneurysm in a patient with a normal blood pressure, which this man had. An arteriovenous aneurysm would explain the low tension but would have to pulsate slightly after the contraction of the ventricles of the heart rather than exactly with them, as happened in this case. Other factors against a diagnosis of aneurysm were the atypical position, the absence of induration around the area of pulsation, and the negative Wassermann tests.

After due deliberation, it was concluded that pulsating abscess was more probable than aneurysm. Aspiration with a fine needle, properly directed, would be unlikely to introduce any avoidable dangers and would make the diagnosis; for, if this was a case of aneurysm, the only therapeutic hope lay in wiring it, which would require puncturing its walls. Exploratory puncture was therefore performed with a small needle inserted obliquely to the surface, and yielded a thick, creamy, greenish pus, which showed no growth on culture but which gave the lesions of tuberculosis in a guinea-pig on injection. Similar pus was obtained from the fluctuant

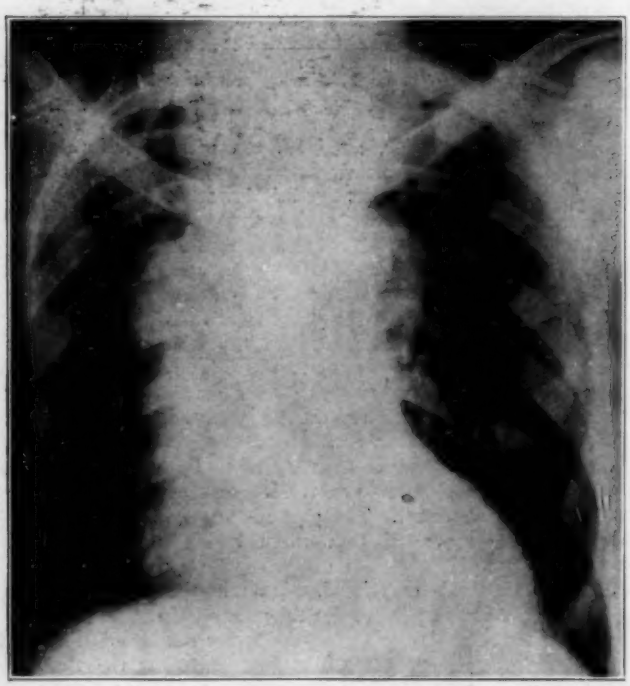


Fig. 2.—Scalloping effect in mediastinum, suggesting mediastinal glands or pockets of pus.

areas along the spine in back. A second roentgenogram showed a scalloping effect in the mediastinum compatible with either glands or pockets of pus (Fig. 2). The next step was to inject the abscess in the front of the chest with 12 per cent. sodium iodid solution, to study its ramifications by the roentgen ray, and to see whether it communicated with the pathologic condition of mediastinum. The result is seen in Figure 3, showing a localized abscess of the chest wall, with a mushroom-like pocket projecting between the ribs, on the head of which the heart could strike, thus imparting to it its pulsation.

This case is brought to the attention of the profession as a pitfall in the diagnosis of aortic aneurysm. The patient

Fig. ..—After injection of pus pocket with sodium iodid: mushroom projection on which the heart beat, giving it its impulse.

was seen by many competent visiting men at the hospital, who allowed the admission diagnosis of aneurysm to go unchallenged.

DRESSING FOR SUPRACONDYLAR FRACTURES OF THE HUMERUS *

E. L. ELIASON, M.D., PHILADELPHIA

Following the practice of reducing fractures under the fluoroscope, when possible, I have found that often, after a perfect reduction, a rotation of the lower on the upper fragment occurred when the forearm was placed in acute flexion on the lateral chest wall, in what is generally considered the Jones position. This was repeatedly shown by views taken after the usual dressing was applied. To prevent this rotation, I have devised a plaster dressing to hold the arm in the "lateral hyperflexion position."

A study of more than a hundred school boys showed that the intercondylar plane does not pass through the body of the patient, but passes posteriorly, just touching the lumbar region and meeting the other intercondylar plane behind the spine. In other words, the arms hang so that the external condyles are anterior to the internal condyles. This natural position is maintained if the forearm is acutely flexed as indicated above. But if we flex the forearm, allowing the forearm and hand to rest on the chest, the intercondylar plane is rotated approximately 20 degrees, the arm being carried further in front of the body plane at the same time. Both of these changes are illustrated in Figure 1. If a supracondylar fracture exists, this rotation is going to occur at the fracture site, and we have a rotation deformity. This rotation, I think, accounts for the gun-stock deformity in many cases. This deformity does not occur if the forearm is flexed toward the shoulder, and the arm dressed in the lateral hyperflexion

* Presented before the Society of Clinical Surgery, Nov. 15, 1923.

position, as shown in the illustrations, with a plaster-of-Paris swathe encircling the arm and then the body, maintaining the fixed relation.

With the elbow in hyperflexion position, the hand directed toward the shoulder of the same side, several turns of plaster-of-Paris bandage are applied (the skin being protected), reaching from the axilla to the condyles. This is allowed to set or harden, no rotation being allowed meanwhile. The limb is now placed so that the humerus lies on the plane of the patient's back. A swathe of appropriate

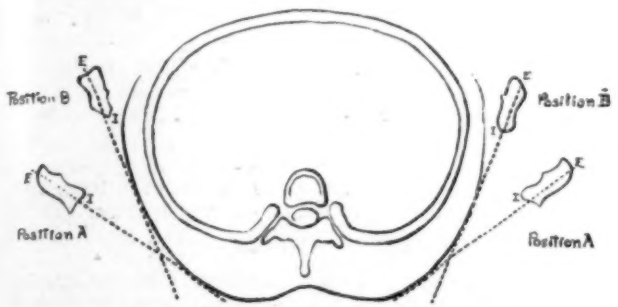


Fig. 1.—Cross section through trunk and arms at the condylar level. Position *A*, the normal one, is retained in the lateral hyperflexion position. Position *B* is the one assumed when the forearm rests on the chest. *E* and *I* represent the external and internal condyles, respectively.

width, and long enough to encompass the trunk three times, is made of several reduplications of plaster-of-Paris bandage on a strip of lint or sheet wadding. With one end applied to the posterior aspect of the sound axilla, the swathe is now carried, diagonally across the back, over the shoulder, around the affected forearm and humerus, back to the place of starting, where it passes over the first end and continues around the front of the chest, again to envelop the forearm and arm. The swathe should not be reversed as it comes over the shoulder and, diagonally, around the wrist and forearm. Turns of plaster bandages can be added to give further stability, one or two being carried around the hand as far as the metacarpophalangeal joints, for support of the wrist.

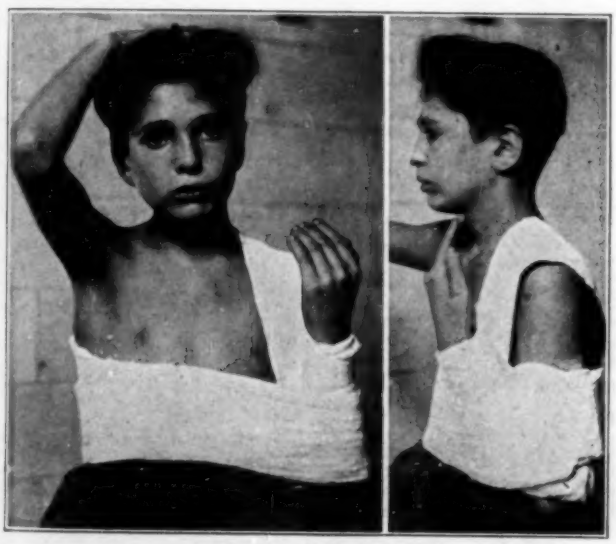


Fig. 2.—Plaster dressing with limb in lateral hyperflexion position.

and the prevention of an irksome droop. The illustrations, owing to an error, unfortunately do not show this addition (Fig. 2).

This hyperflexed position is maintained for ten days; then the dressing is removed, and the forearm moved through an arc of from 20 to 45 degrees, and placed in the flexed position on the chest (Jones position) for ten days, massage and slight motion being used every second day. Between three and four weeks after the reduction, the forearm and arm are placed on a right-angled splint, which is slung around the neck and bound to the body. After all dressings are removed, the patient is told to exercise the elbow, short of discomfort. Whenever full flexion becomes difficult, at any stage of the early treatment, the member is put up in the flexion position again for twenty-four hours. At no time should passive motion be vigorous enough to cause lasting discomfort. I prefer letting the result stand or fall on active rather than passive motion.

DEVICE TO HOLD SUSPENSION TACKLE ON THE JAMB OF A DOOR

WILTON H. ROBINSON, M.D., PITTSBURGH

While suspension is relatively little used now in the application of plaster casts, there occasionally turns up a case in which it is desired to suspend the patient by the Sayre headpiece. In such a contingency we are sometimes faced with the problem of where to attach the apparatus overhead.

The device illustrated is simple and inexpensive, and answers the purpose well.

Device to hold suspension tackle on jamb of door.

It is made from a pair of heavy ice tongs that have a chain handle. The handle is removed and two short pieces of steel substituted, a hole being provided in the lower end of each to receive a hook or piece of rope to attach the head apparatus. The ends of the tongs are blunted, and to each is brazed a heavy piece of iron or steel, 3 or 4 inches long and about an inch wide. It is best to attach a spring between the arms of the tongs to guard against their unexpected fall on the patient.

In use, the two plates at the ends of the arms are placed against the plaster immediately above the jamb of an open door way. They will not damage the plaster, will remain in position, and will carry any weight desired.

5083 Jenkins Arcade Building.

PARAFFINOMA OF THE VAS DEFERENS: AN UNUSUAL COMPLICATION OF INGUINAL HERNIA

LEIGH F. WATSON, M.D., CHICAGO

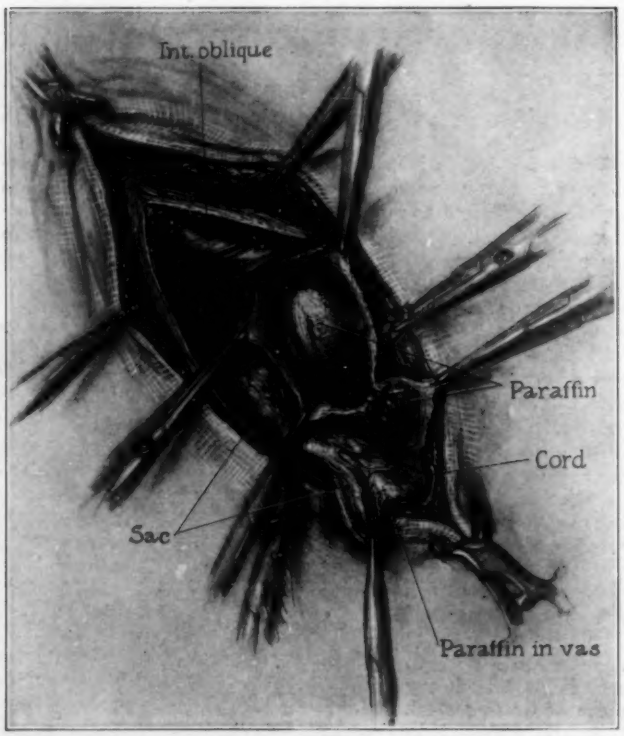
This case is reported to call attention to a very unusual complication of the paraffin injection treatment of hernia.

REPORT OF CASE

A man, aged 42, had had a right oblique inguinal hernia for nine years. Eight months before I examined it, a charlatan attempted to cure it by injecting paraffin. Immediately after the injection, the patient noticed a large swelling in the region of the internal ring, and a smaller mass a little lower which involved the spermatic cord. The cord was swollen and painful, and the right testis was tender on pressure. The patient complained of constant discomfort from the paraffin masses, and said that they were much more painful than the original hernia. At operation, under local anesthesia, I removed a large mass of paraffin, measuring 1 by 1 by 2 inches, from the internal oblique muscle; another one, measuring ½ by ½ by 1 inch, from the conjoined tendon

on the inner side of the sac, in front of the spermatic cord; and a smaller mass involving the vas deferens, which was occluded at this point. It was evident that the vas had been punctured and injured by the needle used for injecting the paraffin. I resected the vas and anastomosed the ends.

The hernial sac was 3 inches long, and a tongue of omentum was firmly adherent to the fundus. The density of the adhesions was evidence that considerable inflammation had



Paraffin injection of the cord and internal oblique muscle.

been produced at one time; this might have been due to the injection of paraffin into the sac, although it is often found in patients who have worn a truss with a hard pad and a strong spring.

On account of the high percentage of recurrence following operation for "paraffin hernia," I closed the wound, using the regular Bassini operation combined with a lateral displacement of the cord on to the internal oblique muscle, one-half inch internal to the deep suture line. This permits the fascial flaps to unite firmly with the deep suture line, and it reenforces the weak spots—the internal ring, the lower end of the incision over the pubic bone, and the line of deep sutures.

Operations for paraffinomas complicating hernia are common because the paraffin injection treatment has been widely practiced by charlatans who advertise to "cure without a knife or truss." If the hernia was not a source of discomfort before injection, it will be afterward, for the hard masses of paraffin sooner or later cause inconvenience and pain sufficiently severe to compel the patient to seek relief by operation. The pain, irritation and annoyance are most marked in those patients who have had paraffin injection into the loose cellular tissue of the cord or into the sac wall, resulting in a freely movable mass that passes up and down in the canal synchronous with deep breathing or muscular effort.

Paraffin masses exert pressure on the intestine in the sac, thus increasing the danger of strangulation; subsequent operation is more difficult, and the percentage of recurrence is high. The injections do not obliterate the sac, nor do they close the inguinal canal, even if deposited in the sac or outside the sac in the canal. The paraffin becomes encapsulated, and is gradually replaced by a mass of scar tissue, which has a tendency to undergo malignant change.

I have found the paraffin masses in the subcutaneous tissues; in the inguinal canal; in the hernial sac; in the external and internal oblique and transversalis muscles and fasciae; in Poupart's ligament; in the conjoined tendon, and in the spermatic cord.

Among the serious accidents that have followed this treatment may be mentioned injection of paraffin into the skin or subcutaneous tissues, producing necrosis and gangrene; injection into the vas deferens or other cord structures; the forcing of paraffin into the peritoneal cavity, resulting in simple inflammation and adhesions; the wounding of the intestine or appendix with the needle, causing peritonitis; injections into the blood vessels, followed by pulmonary or cerebral embolism or a sudden blindness from plugging of the artery of the retina, and occlusion of the iliac or the femoral artery, with gangrene of the extremity necessitating amputation.

30 North Michigan Avenue.

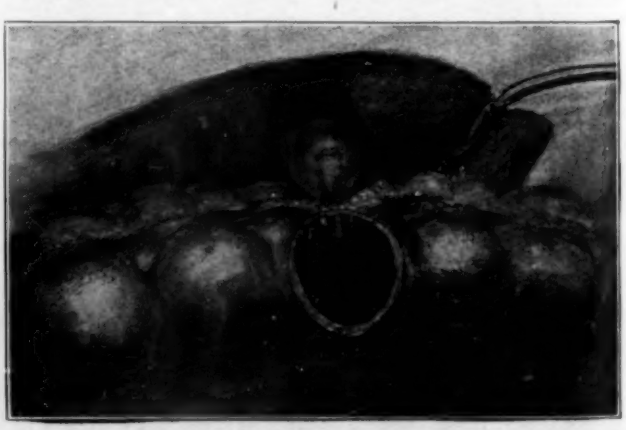
CHOLECYSTOCOLOSTOMY WITH A TUBE AND THE POSSIBILITY OF A VALVE FORMATION

WALTER D. WISE, M.D., BALTIMORE

In the case of Miss C. O'H., admitted to Mercy Hospital, Sept. 14, 1923, suffering with a carcinoma of the head of the pancreas (confirmed by microscopic section) and complete obstruction of the common duct, a cholecystenterostomy was not done at the primary operation, September 21, because of the fear of hemorrhage, the patient being very deeply jaundiced. This fear was substantiated by three days of postoperative bleeding from the abdominal incision, in spite of careful suturing and tying, coagulants, etc. After the jaundice disappeared, it was decided to do a cholecystenterostomy to obviate the necessity of frequent dressings and in the hope that the patient might leave the hospital.

November 20, the gallbladder, on being exposed, was found to be shrunken down to dimensions of about 7 cm. in length and 2 cm. in diameter, and partially buried in the liver. It was so easily torn as to make it impossible to free and conserve enough of it to do a cholecystenterostomy, even by using a button for intestinal anastomosis. The duodenum was situated so far posteriorly and so densely covered with adhesions as to prevent its being used in any anastomosis that might be done. The choice was between the colon and the stomach. The following operation was done:

A piece of rubber tubing, 1 cm. in diameter, was cuffed, and the cuffed end was placed in the gallbladder. A purse-



Anastomosis, showing valve.

string suture of catgut was run around the friable gallbladder, taking a large bite in the liver; no attempt was made to invert the gallbladder edge, because of its friability. Then the colon was brought up and sutured to the liver around the tube; over this a layer of omentum was sutured to the liver, making what appeared to be a water-tight repair. A suitable location in the colon was then chosen and the free end of the tube inserted in a puncture made by the cautery, the purse-string having been previously placed. Cigaret drains were placed near the anastomosis, and the abdomen was closed.

The convalescence was uneventful, there being no leakage of bile whatsoever, and on the third day there was a brown stool, something that had not occurred since before admission to the hospital. Bowel movements were regular, of a normal color and semisolid consistency; there was no diarrhea at any time. (Later, large quantities of morphin necessitated the use of enemas.) The incision healed promptly. On the thirty-second day, the tube was passed by rectum. There was no evidence, at any time, of infection of the biliary tract.

The patient died, January 8, greatly emaciated and showing a large tumor in the region of the pancreas. This operation is reported because it was successful, in a case in which a cholecystenterostomy could not be done by the usual methods and, in which a button could not be used. The colon was chosen instead of the stomach because it was feared that the tube would not pass the pylorus or ileocecal valve.

Perhaps an improvement would be the use of a larger tube and two purse-string sutures so as to form a valve, somewhat as in a Senn gastrostomy, thus lessening the chance of infection of the biliary tract, after passage of the tube. An anastomosis with a longer valve could readily be made, but would be less likely to remain patent.

THE TIMING OF INSULIN DOSES*

FREDERICK M. ALLEN, M.D., MORRISTOWN, N. J.

The original plan of giving insulin just before meals is followed as a routine by most physicians, and works well in most cases. Difficulties are encountered, however, in certain severe cases requiring high dosage. In these there is a tendency to glycosuria or undue hyperglycemia before or after breakfast, and to hypoglycemia in the latter part of the day. Devices of increasing or decreasing the total dosage or diet, or altering the quantities of individual meals or doses, are still baffled by one or the other of these dangers. A fourth dose during the night is successful, but inconvenient. Accordingly, many practitioners resign themselves to the inherently bad and dangerous system of permitting glycosuria during at least a part of the day, feeling that this is at any rate the lesser of two evils.

TIME OF DOSES

In rare cases, the diabetes may be so severe that four doses during twenty-four hours are unavoidable. But for cases of any ordinary severity, there is need of a method by which a conscientious physician can accomplish the purpuse of preventing glycosuria or extreme fluctuations of the blood sugar with three doses a day. These fluctuations are due to the cumulative effect of the doses of insulin during the day and the long period without insulin during the night. It is unnecessary to have recourse to the expedient (usually inconvenient) of giving breakfast extremely early and supper extremely late. Insulin is concerned not merely in the disposal of food during the digestive period but also in its utilization throughout the twenty-four hours. In the type of case mentioned, the long night period can be shortened by giving the first insulin dose about an hour before breakfast (usually immediately on rising) and the third dose about an hour after supper or even at bedtime.

The first dose reduces the morning hyperglycemia, so that glycosuria does not occur either before or after breakfast. The cumulative effect of the morning and noon doses always prevents glycosuria at supper time. The evening dose, when postponed, does not augment this cumulative effect so as to cause hypoglycemia, but serves instead to repress the hyperglycemia which tends to develop during the night.

The quantities of the single meals or doses can, of course, still be varied to suit the individual need or convenience of the patient.

RESULTS

In some six months' use of this plan, we have encountered no serious hypoglycemia or other difficulties, and we are therefore adopting it as a routine for most severe cases requiring high insulin dosage.

* From the Physiatric Institute.

New and Nonofficial Remedies

THE FOLLOWING ADDITIONAL ARTICLES HAVE BEEN ACCEPTED AS CONFORMING TO THE RULES OF THE COUNCIL ON PHARMACY AND CHEMISTRY OF THE AMERICAN MEDICAL ASSOCIATION FOR ADMISSION TO NEW AND NONOFFICIAL REMEDIES. A COPY OF THE RULES ON WHICH THE COUNCIL BASES ITS ACTION WILL BE SENT ON APPLICATION. W. A. PUCKNER, SECRETARY.

NEUTRAL ACRIFLAVINE-ABBOTT (See New and Nonofficial Remedies, 1924, p. 24).

The following dosage form has been accepted:

Neutral Acriflavine-Abbott for Intravenous Injection, 0.1 Gm. Ampules.

INSULIN (See New and Nonofficial Remedies, 1924, p. 149).

Insulin-Stearns.—A brand of insulin.

Manufactured by Frederick Stearns and Company, Detroit, under license from the Governors of the University of Toronto. No U. S. trademark.

Insulin-Stearns Single Strength: 5 Cc. vials containing 10 units in each cubic centimeter.

Insulin-Stearns Double Strength: 5 Cc. vials containing 20 units in each cubic centimeter.

DIGALEN-ROCHE (CLOETTA).—A sterile solution containing in each cubic centimeter 0.3 Mg. of an active derivative of digitalis as isolated by Cloetta, containing 7.5 per cent. of alcohol.

Actions and Uses.—The same as those of digitalis. After a time under conditions which have not yet been determined satisfactorily, digalen-Roche (Cloetta) sometimes deteriorates, even when the container remains unopened. Experiments made under the direction of the Council show that the preparation has varied both quantitatively and qualitatively in its action.

Dosage.—The average dose is from 1 to 2 Cc. (15 to 30 minims). The maximum daily dosage is 6 Cc. (90 minims). Digalen-Roche (Cloetta) is also suitable for intramuscular and intravenous injection. Intravenous injections of 1 Cc. (15 minims) may be repeated at intervals of one-half to one hour as necessary.

Manufactured by The Hoffmann-La Roche Chemical Works, New York. No U. S. patent. U. S. trademarks 43,593; 83,738.

Ampules Digalen-Roche (Cloetta), 1.1 Cc.

Tablets Digalen-Roche (Cloetta): equivalent to digalen-Roche (Cloetta) 0.5 Cc.

Hypodermic Tablets Digalen-Roche (Cloetta): equivalent to digalen-Roche (Cloetta) 1 Cc.

Digalen-Roche (Cloetta) is prepared as follows:

The dried and finely powdered leaves of digitalis are extracted with diluted alcohol; then the extract is mixed with lead acetate solution in order to remove chlorophyll and resins, and filtered. From this filtrate the excess of lead is precipitated with sodium sulphate and the alcohol distilled off in vacuo. From the remaining aqueous solution, the active derivative of digitalis contained in digalen-Roche (Cloetta) is extracted by ethereal solvents and precipitated afterward in an amorphous and pure condition according to a special secret method. Each cubic centimeter of digalen-Roche (Cloetta) contains the active derivative of digitalis 0.3 Mg. in a menstruum consisting of glycerine 1,000 parts, distilled water 1,600 parts and alcohol 7.5 per cent., making an isotonic sterile solution.

Digalen-Roche (Cloetta) is a colorless or slightly yellowish liquid of an agreeable aromatic odor with a sweet taste which subsequently becomes bitter.

The active derivative contained in digalen-Roche (Cloetta) is an amorphous, white or slightly yellow powder. It is stated to have a solubility five times as great as that of crystallized digitoxin. It is stated to dissolve readily in alcohol and chloroform, and less readily in ether. It has an intensely bitter taste and causes violent sneezing.

To 2 Cc. of digalen-Roche (Cloetta) add a few drops of diluted acetic acid and extract with chloroform. Evaporate the chloroform extract and dissolve the residue in about 2 Cc. of glacial acetic acid containing a trace of ferric chloride. To this solution add strong sulphuric acid without mixing so as to form a separate layer: a brown ring forms between the two layers which becomes broader after some hours and expands toward the top in a blue-green to black shade, and toward the bottom in a reddish-brown one. The acetic acid finally acquires a dark green-blue color.

War Raises Tuberculosis Death Rate.—The standardizing of the tuberculosis mortality in England and Wales brings out more fully the influence of the war in raising the tuberculosis death rate. The figures now available for that period are higher than those previously published. A rise of 41 per cent. occurred in 1918 over the 1923 mortality.—Drolet, G. J.: *Am. Rev. Tuberc.* **8**:400 (Jan.) 1924.

PROCEEDINGS OF THE CHICAGO SESSION

MINUTES OF THE SEVENTY-FIFTH ANNUAL SESSION OF THE AMERICAN MEDICAL ASSOCIATION, HELD AT CHICAGO, JUNE 9-13, 1924

HOUSE OF DELEGATES

First Meeting—Monday Morning, June 9

The House of Delegates met in the assembly room at the American Medical Association headquarters, and was called to order at 10 a. m. by the Speaker, Dr. F. C. Warnshuis, Grand Rapids, Mich.

Preliminary Report of the Committee on Credentials

The Chairman of the Committee on Credentials made a preliminary report of this committee, stating that the committee desired at this time to report progress, and that more than a quorum of delegates had qualified.

As there was no objection, the report was accepted.

Next in order was the roll call by the Secretary.

The Secretary stated that the registration of the delegates in attendance recorded the presence of more than a quorum.

A quorum being present, the Speaker announced that the House was constituted and ready for the transaction of business.

The next order of business was the presentation, correction, and adoption of the minutes of the Seventy-Fourth Annual Session.

The Secretary stated that the minutes had been printed and circulated among the members of the House of Delegates, with the request for criticism or corrections, but none had been received.

It was moved that the reading of the minutes of the Seventy-Fourth Annual Session be dispensed with and approved as printed.

Seconded and carried.

Addresses of Executive Officers

Drs. F. C. Warnshuis, Speaker, and William Allen Pusey, President-Elect, addressed the House. See addendum.

Reports of Officers

REPORT OF SECRETARY

Dr. Olin West, Secretary, presented the following report, which was referred to the Reference Committee on Reports of Officers:

To the Members of the House of Delegates of the American Medical Association:

I have the honor of submitting the following report for the year 1923-1924:

MEMBERSHIP

The membership of the Association as enrolled on April 1, 1924, was 90,056, which is 1,537 more than the membership reported to this house at its last session.

FELLOWSHIP

The Fellowship roster contained 54,063 names, May 1, 1924. This represents a gain of 619 as compared with the number of Fellows reported last year. While 3,762 new names were added to the roster during the year, 3,143 were removed. These removals were due to: deaths, 606; resignations, 905; nonpayment of dues, 583; not found, 23; not eligible, 1,026.

Even yet there is considerable misunderstanding concerning the requirements for Fellowship, and its privileges, in spite of oft repeated efforts to present the facts forcefully to the attention of all members of the Association. It frequently happens that those who have been affiliated as members for many years, but have not qualified as Fellows, are greatly astonished to find that they are not Fellows; less frequently, those who have had the status of Fellows for a long time suddenly become imbued with an ardent desire and make formal application for the relationship that they have occupied for years. Nevertheless, there seems to be a growing appreciation of Fellowship and a growing tendency on the part of members generally to apply for, and to maintain permanently, that relation.

The number of Fellows in each state is shown in the accompanying table.

ORGANIZATION OF CONSTITUENT ASSOCIATIONS

State	Number Counties in State	Number Component Societies in State Assn.	Number Counties in State Not Organized		Number Physicians in State (8th Ed. Directory)	Number Members of State Association		Number A. M. A. Fellows in State
			1923	1924		1923	1924	
Alabama	67	67	..	..	2,313	1,666	1,662	468
Arizona	14	11	3	3	372	143	225	165
Arkansas	75	66	10	10	2,303	1,097	1,197	459
California	58	40	16	16	7,549	3,335	3,929	3,151
Colorado	63	25	25	25	1,882	1,070	1,090	671
Connecticut	8	8	..	..	1,727	1,112	1,100	736
Delaware	3	3	..	..	295	141	147	82
Dist. Columbia	..	..	..	..	1,924	549	566	380
Florida	54	28	24	24	1,348	622	514	336
Georgia	154	98	49	54	3,274	1,595	1,716	824
Idaho	44	10	18	17	452	273	260	155
Illinois	102	96	4	4	10,716	7,175	6,653	4,727
Indiana	92	84	2	6	4,353	2,436	2,735	1,383
Iowa	99	97	..	..	3,490	2,384	2,450	1,407
Kansas	105	69	40	31	2,492	1,577	1,640	889
Kentucky	120	110	10	10	3,155	2,028	1,969	730
Louisiana	64	37	25	24	2,058	1,109	1,169	671
Maine	16	15	1	1	1,067	746	767	354
Maryland	23	21	1	..	2,349	1,288	1,231	794
Massachusetts	14	18	..	..	5,977	4,059	4,078	2,651
Michigan	83	57	5	7	4,653	2,972	3,181	1,665
Minnesota	86	38	5	6	2,774	1,827	2,042	1,246
Mississippi	81	36	3	4	1,792	887	1,024	300
Missouri	114	101	6	6	5,827	3,564	3,292	1,966
Montana	51	16	35	35	508	325	303	172
Nebraska	93	56	30	34	1,913	1,270	1,229	708
Nevada	17	3	14	14	140	107	115	62
New Hampshire	10	10	..	..	615	520	499	266
New Jersey	21	21	..	..	3,362	1,935	2,092	1,359
New Mexico	29	13	15	15	399	225	201	160
New York	62	60	1	1	16,867	9,879	10,087	6,109
North Carolina	100	71	29	29	2,226	1,267	1,656	593
North Dakota	53	14	2	2	517	417	385	257
Ohio	88	85	3	3	8,086	4,824	4,759	2,595
Oklahoma	77	69	8	9	2,600	1,586	1,589	690
Oregon	36	16	1	1	1,158	578	580	344
Pennsylvania	67	63	4	4	11,241	7,309	7,433	4,542
Rhode Island	5	6	..	..	754	388	390	282
South Carolina	46	41	5	5	1,368	873	916	385
South Dakota	68	11	1	1	630	356	358	226
Tennessee	96	67	28	27	3,226	1,554	1,711	678
Texas	248	135	66	66	6,094	3,628	3,650	1,729
Utah	29	6	23	23	497	325	356	238
Vermont	14	10	3	3	556	394	389	178
Virginia	100	32	43	43	2,503	1,773	1,843	680
Washington	39	19	19	20	1,756	1,121	1,122	638
West Virginia	55	28	14	14	1,751	1,496	1,142	548
Wisconsin	71	53	1	1	2,772	1,921	1,914	1,190
Wyoming	22	7	12	12	203	134	153	89
Foreign	...	...	..	..	.....	.....	.....	160
Alaska	5	...	..	..	.....	20	20	15
Hawaii	7	...	..	..	.....	92	92	44
Porto Rico	...	...	..	..	.....	98	125	30
Philippine Isl	...	...	..	..	.....	129	151	36
Canal Zone	...	...	..	..	.....	110	102	18
Totals	3,047	2,022	595	597	145,966	88,519	90,056	51,231
Commissioned Officers, Honorary and Affiliated Fellows								2,832
								54,063

CONSTITUENT ASSOCIATIONS

The fifty-four constituent state and territorial associations of the American Medical Association are, for the most part, worthily serving the purposes of medical organization. The most progressive are constantly widening the scope of their activities or are centralizing effort for the accomplishment of specific tasks of major importance. These are aggres-

sively advancing the common cause. Some associations are maintaining close contact with other state organizations, lay or semiprofessional, and so are exercising leadership in public movements in which the interest of the medical profession is very real. The scientific work of most of the state associations is constantly improving.

Six associations, namely, the Ohio State Medical Association, the State Medical Association of Texas, the State Medical Society of Wisconsin, the California Medical Association, the Missouri State Medical Association, and the Medical Society of Virginia, now have full-time secretaries, and one or two others are considering the employment of such officers. While a few of the best organized and most active state organizations have done splendid work under the secretarial direction of physicians who devote only a part of their time to such work, the records they have made simply reflect the devotion, ingenuity and executive ability of their secretaries. There can be little doubt that the association whose business receives the attention of a competent full-time secretary, with that business his only concern, will have decided advantages and will maintain more efficient organization than that one whose executive officer must, of necessity, devote most of his time and energy to his own personal affairs. The smaller associations cannot afford the expenditure necessary for the employment of a full-time secretary, but there are a number with membership large enough to provide easily for the maintenance of such an officer, and, if he is of the right sort, his work will generally result in securing a larger and better satisfied membership. Details will be more carefully attended to, closer contact can be established with the county societies and the individual member, better records can be kept, financial income can be conserved or expended to better advantage, general officers can be kept better informed and can be stimulated to better service, and the business of the association generally can be transacted more promptly and more profitably.

This attempted presentation of the case for the full-time secretary must not be in any manner interpreted to the disparagement of any of those who have given such devoted service as part-time secretaries. Their work stands for itself. They have won the respect and gratitude of the members of this Association in their several states, and certainly they have the lasting gratitude of the compiler of this report, to whom they have extended every possible kindness and assistance.

Thirty-one state medical journals are now being published, and these are contributing powerfully to the effectiveness of state and county organization. There is a general tendency toward increased membership assessments in the state societies, a hopeful sign that indicates a desire on the part of officers and members to widen the field of helpful activities, and to increase and improve the efficiency of these organizations.

Some of the constituent associations, by reason of the small medical population in their states, cannot work as comprehensively or as intensively as the stronger organizations, but most of these smaller societies are nevertheless carrying on in a manner that entitles them to great credit and makes them altogether worthy of the most helpful consideration and the very earnest respect of this Association. It may reasonably be said that some of the larger associations might well "take a leaf from the book" of the smaller societies and receive from them an inspiration that might lead to more and to better work and, consequently, to greater benefits for individual members. It is not desirable that the effort of medical societies should be scattered over too wide a territory or directed toward so many matters that those of fundamental importance will fail to receive the constant careful attention they should have; but it is desirable and necessary that every affiliated society of this Association shall work vigorously and persistently for the solution of common problems and, especially, for the scientific and economic improvement of its members.

Component County Societies

The past year has been one of splendid achievement for many component county societies, while it has been nothing more than a mark on the calendar for a deplorably large number of others. It is not an uncommon occurrence to find on return information cards, sent out from the office of the secretary to county societies, the notation "No meetings during the past year." In a few instances, information has come back to the effect that no meetings have been held for two, or even for three years. In some cases there are extenuating circumstances, but too often the situation is one that has developed as the result of apathy and indifference that might have been prevented. These inactive societies, existing in name only, are "kept on the books" because their members seek certain advantages that can be secured only through membership and are willing to pay the nominal sum required as annual dues to gain for themselves certain privileges or remunerative connections.

A number of independent societies have been organized, in various states, in territory already supplied with county societies. The relatively large number of inactive and moribund county societies, and the conditions that have inspired the organization of independent local societies, offer a decided challenge to the general officers and especially to the councils of the state associations concerned.

Councilor District Societies

In some states the active maintenance of district societies seems to have worked greatly to the advantage of medical organization generally and to have provided powerful stimulation to component county societies. Of course, the county society is the basic and necessary unit of medical organization in the United States and must so continue. But it is conceivable and, indeed, is probable that district societies, with worth-while meetings twice or three times a year, may prove a powerful factor in maintaining effective organization. This suggestion for the promotion of councilor district societies is offered as being worthy of the serious consideration of this House of Delegates and the officers of all constituent state associations. Due provision is made for the establishment of district societies in the constitution and by-laws for state associations.

The Individual Member

Medical societies are intended to promote the welfare of the individual member and to serve the interest of the public. Of course, the individual cannot get much benefit from his connection with a society unless he contributes something to the society. But it is possible for medical organization, because it can exert organized effort, to contribute relatively more to the individual than he can contribute to the mass, and that is what our medical societies must do if their intended purpose is to be carried out.

The outstanding possibility and the outstanding responsibility of organized medicine is to contribute to the scientific improvement of its affiliated physicians—to make every one of them a better physician. When the American Medical Association carries really helpful service, even beyond that which it now performs in no small way, to the individual physician in its membership, through his own state and county society, medical organization in the United States will be made permanently strong. No better service can be performed for the physician and for the public to whom he ministers than that through which he will gain scientific improvement. The great mass of the medical profession in this country cannot easily reach educational centers where needed instruction can be secured. It may be possible and feasible for the American Medical Association, with the cooperation of state societies, medical schools and individual physicians of ability and established reputation, to carry instruction—not ultra-scientific, but of that practical sort that can be applied in everyday work—through the county medical societies to its members, or, at least, to those of its members who are concerned in keeping themselves informed to the degree that will enable them to become even better practicing physicians. This matter, referred to in the report of the secretary submitted to this House at its last annual session, will be presented also in the report of the Board of Trustees at this session. It is mentioned here only to point out the possibilities for enhancing organizational efficiency through

the medium of actual helpful service carried to the individual member at or near his own home. When he is shown that the American Medical Association and its constituent and component units are concerned over his individual welfare; when the people are shown that medical organization, already working mightily for its own members and the public, is determined to do everything possible to make medical service more efficient, then membership in the county society, in the state association, in the Americal Medical Association, will mean more than ever before, and the influence of organized medicine throughout the land will be greatly strengthened.

Constitution and By-Laws of State Associations and County Societies

The constitution and by-laws for constituent state associations, and the constitution and by-laws for component county societies, prepared by a special committee more than twenty years ago, were very generally adopted. Since their adoption, many changes have been made by some societies, while none of any moment have been made by others. In some instances, very material changes have been made, and there seems to be a tendency toward further and somewhat radical amendment. It may be wise to seek the adoption of a reconstructed constition and by-laws for state associations, and for county societies as well, to be uniform as far as the peculiar conditions in the various states will permit of uniformity. There are certain ambiguities in the present instruments which need correction or clarification. This may be especially true of sections in which certain authority is delegated by the state association to the county society, and it may also be true that there should be more specific definition of the authority of the state association over members *as members of the state organization.*

It is highly important that there shall be no provisions in the constitution and by-laws of the county society that conflict with those of the constitution and by-laws of the state association or of the American Medical Association. It is entirely possible that, in some instances at least, there has been too little examination by the state associations into the condition and the amendment of county society constitutions and by-laws, especially the by-laws. Each county society is supposed to hold a charter from its own state association, under which it receives certain authority and under which it also subscribes to the government of the state association in certain essential matters. The state association, in turn, is a member of the "federacy of constituent associations," which is the American Medical Association, though no charter is issued to a constituent association by the national body.

The same thread of organizational principle should run through the whole fabric of organization. The rights and privileges of every member should be equal in every unit of organization, except as the need for the present classifications of members and Fellows may affect the situation. Our plan of organization is intended to be, and is, thoroughly democratic, and must be so maintained. This can be done only as the governing principles are set out in the constitution and by-laws of the Association, of the state association and the county society, so that they shall be applied with all possible uniformity in every organizational unit. An occasional revision of all of them, with due regard to the relation of each to the other, and with a view of removing all conflicts, ambiguities and redundancies, would seem to be wise procedure. At any rate, the matter is submitted for consideration by this House as being important enough to deserve special study.

Relations with Other National Medical Associations

The American Medical Association was honored by the presence of an official delegate from the Canadian Medical Association at its session in San Francisco. It would seem desirable that closer and even more cordial relations should be established betweeen this and other national organizations of similar character. This might be accomplished through the attendance of duly authorized delegates on the annual meetings of the societies concerned, without any obligation with respect to expenses that may be incurred by such delegates.

The American Medical Association Bulletin

Since Oct. 1, 1923, the Bulletin, as directed by the House of Delegates, has been sent to all Fellows without cost. The average monthly circulation of the Bulletin has been in excess of 55,000. While many commendatory letters indicate that the Bulletin has been well received and is thought to be a worth-while publication, it has not achieved its greatest possible usefulness, nor will it ever do so until its columns are more freely utilized for discussions by the members of this House of Delegates, the officers of medical societies, and individual members and Fellows.

Annual Conference of Secretaries of Constituent State Associations

The regular annual conference of secretaries of state associations was held in Chicago in November, 1923. Thirty-four state secretaries were present. The transactions of the conference were printed in full in the American Medical Association Bulletin. The pleasure and the profit of the occasion were enhanced by the presence and participation in the proceedings of the conference of the presidents and presidents-elect of several state associations, and of several editors of state journals who are not also secretaries. The President, President-Elect, members of the Board of Trustees, and departmental heads of the American Medical Association also attended the conference and took part in its work.

Appointment to Judicial Council

Since the last annual session, the President has appointed Dr. F. W. Cregor, Indianapolis, to serve as member of the Judicial Council in place of Dr. J. H. J. Upham, elected a member of the Board of Trustees.

Reapportionment of Delegates

Section 3, Chapter I, of the By-Laws provides that the House of Delegates shall appoint a committee of five on reapportionment every third year, the speaker and the secretary to be members of this committee. This is the year for the reapportionment of delegates from constituent state associations. It is respectfully suggested that the selection of this committee should be made as early in the session as possible, in order that it may submit its report in time for the House to give it careful consideration.

Proposed Amendment to Constitution

The following proposed amendment to the Constitution was submittted at the San Francisco session one year ago, to lie over for action at this annual session:

Amend Section 2, Article 6, of the Constitution by striking out the words "three of whom shall be elected annually, each to serve for three years," and by adding to this section the following: Two trustees shall be elected annually, except every fifth year, when but one shall be elected, each to serve for five years and until his successor is elected and installed. No trustee shall serve for more than two consecutive terms, but a trustee elected to serve the balance of an unexpired term shall not be regarded as having served a term unless he has served three or more years: Provided, that at the session of the House of Delegates at which this amendment is adopted, two trustees shall be elected to serve three years, and one to serve four years; at the next annual session thereafter, one to serve three years and two to serve four years; and at the next subsequent session, two or serve four years and one to serve five years; and thereafter every trustee shall be elected as heretofore directed.

Communication from Secretary of Washington Academy of Sciences

A letter from F. B. Silsbee, corresponding secretary of the Washington Academy of Sciences, requests that the House of Delegates give consideration to the following resolution adopted by that academy:

Resolved, That the Washington Academy of Sciences hereby petition and urge the President, the heads of departments of the federal government and the Congress of the United States to give the welfare of science in the United States their earnest consideration and assistance; and to provide by law and by appropriation of the necessary money for the attendance of such scientists of the government as heads of departments may designate at scientific congresses, conventions and meetings in this country; and for the attendance of such scientists of this country, both in the government and in private life, as may be recommended to the Department of State by competent authority and approved by the head of that department or the official acting for him, as representatives of the United States of America at international scientific congresses,

conventions and meetings. These appropriations would be exceedingly small as compared with the returns from them in great benefits to scientific advance in America, and hence to the promotion of the national welfare.

Mr. Silsbee asks in his letter that this House adopt resolutions of similar import, and by any other means that may seem feasible endeavor to secure the enactment of law and appropriations by Congress for the purposes indicated in the resolution of the Washington Academy of Sciences.

Official Visits to Meetings of Constituent and Component Societies

The President, President-Elect, Editor and General Manager, members of the Board of Trustees, heads of departments, and the secretary have all made official visits to meetings of state, district and county societies during the year. It has not been possible to provide for the acceptance of all invitations to have the Association represented at such meetings, but it is intended that representatives of the Association shall visit its constituent and component societies whenever it can be done without excessive expenditure or without unwarranted interference with the necessary routine work of the Association.

In Appreciation

As ex-officio secretary of the Judicial Council and the Council on Scientific Assembly, the secretary has, of course, attended the meetings of these two bodies. He has been invited, and has been present at the regular meetings of the other councils and boards of the Association and at meetings of important committees. Thus, through the thoughtful courtesy of these official bodies, the secretary has been kept constantly in touch with various activities undertaken by the Association, and has received most helpful assistance. From every officer and from the entire official personnel of the Association, from officers of state, district and county societies, and from many members and Fellows, the office of the secretary has received kindly consideration and invaluable help, for all of which grateful acknowledgment is here offered.

Olin West, Secretary.

REPORT OF THE BOARD OF TRUSTEES

Dr. Wendell Phillips, New York, Chairman, presented the following report, which was referred to the Reference Committee on Reports of Officers:

To the Members of the House of Delegates of the American Medical Association:

We herewith present the report of the Board of Trustees for the year ending Dec. 31, 1923.

The Journal Subscription Department

In the Addenda to the Trustees' Report will be found tables that visualize the main facts regarding the circulation of The Journal during 1923.

Last year, the introduction to this report called attention to the fact that a falling off of 112 had occurred in the circulation of The Journal in 1922—the second time in twenty-five years that there had been a decrease in circulation, the other time being the second year of the World War, 1916. During the past year, the circulation of The Journal went back into the progressive list, reaching 80,958—a gain over the previous year of 1,400.

No greater effort was made last year with respect to increasing the circulation than in preceding years; in fact, fewer letters and sample copies were sent out. For instance: In 1922, 167,520 letters were circulated, which brought 2,682 subscriptions; whereas 124,810 circular letters were mailed in 1923 and brought 3,469 subscriptions. Also, only 94,000 sample copies were distributed in 1923, as compared with 132,000 in 1922. But it is quite possible that the reduction in the subscription price to $5 had something to do with the increase in circulation, for of the 124,810 letters sent out in 1923, 50,236 were mailed the latter part of November, offering The Journal at the subscription rate of $5 and 1,931 orders were received. Undoubtedly, therefore, at least part of this increase must be credited to the reduction in the subscription price of The Journal to $5.

There were 14,355 new names added to the mailing list, and 12,954 taken off on account of death, ineligibility for Fellowship, resignations, expiration of subscriptions, and nonpayment of dues and subscriptions. A large number of those in the two classes last mentioned—several thousand at least—will, of course, remit and resubscribe when they learn that The Journal has been cut off. For instance, in one week of the current year, more than fifteen hundred names were dropped for nonpayment of dues or subscriptions; of these, 75 per cent. undoubtedly will remit dues or resubscribe within six months.

The increase in the list of subscribers of California, Washington and Oregon is attributed to the San Francisco Session. Personal solicitation secured the increases of subscribers in Georgia and New York.

The foreign circulation of The Journal has increased by eighty-five, making the foreign circulation 1,676.

Advertising Department

Reference to the auditor's report will show that the Advertising Department continues to make a good showing; the receipts for 1923 were $617,825, or $17,325 over the preceding year. The income from advertisements exceeded the receipts from dues and subscriptions by $149,727.

There was a slight increase in the number of advertising pages of The Journal during the year—2,866, as compared with 2,714 in 1922, which gives an average of approximately three pages increase in each issue.

Cooperative Medical Advertising Bureau

In 1923, the *New Orleans Medical and Surgical Journal* became affiliated with the bureau. There are now in the bureau thirty state journals—all but that of Illinois, representing thirty-seven state associations.

The cooperation of the American Medical Association with the state journals through the bureau has been of distinct advantage to these journals and to the various state organizations. It promotes closer cooperation of these journals; it relieves the editors of the expenditure of time to secure satisfactory advertising, and, above all, it secures an amount of clean, high class advertising that these journals could not otherwise obtain. In the auditor's report it will be seen that the commissions rebated to the state journals in 1923 amounted to $5,500.

Spanish Edition

In the Trustees' report of last year, attention was called to the handicap resulting from the difficulty in having money transmitted from foreign countries, and particularly to the depreciation in the currency of many of these countries. To meet this condition unfavorable to the circulation of the Spanish Edition of The Journal, the Board decided to accept the currency of the country on the 1914 basis, the Rockefeller Foundation agreeing to assume the deficit. The adoption of this policy has not proved successful, but the Board has adopted other measures of promoting the circulation of this periodical and in the transmission of money which we believe will succeed. In fact, a study of the question of the circulation of the periodical and of the facts related thereto presents no reason for discouragement.

Reference to the auditors' report will show a loss of $7,615.02, as against a loss of $11,171.08 in 1922, and an even larger loss in 1921. As in former years, the Rockefeller Foundation bears one-half the loss in the publication of the Spanish Edition. It is the opinion of the Board that a continued energetic campaign in securing subscriptions to and advertisements for the Spanish Edition will gradually reduce the deficit in its publication until it may be issued without loss to the Association.

Attention is called to the fact that the Spanish Edition represents American medicine abroad. It promotes scientific medicine and a closer fraternal relationship with our colleagues in Spanish-speaking countries.

The present subscription list includes 2,667; the total circulation is 4,100 at the end of December, 295 names were

removed from the list, of which 200 were for the nonpayment of the subscription. Many of these will renew their subscriptions.

SPECIAL JOURNALS

The circulation of the special journals for 1923 is as follows: ARCHIVES OF INTERNAL MEDICINE, 2,482, a loss of 44 over the year 1922; AMERICAN JOURNAL OF DISEASES OF CHILDREN, 2,770, a loss of 71 subscribers over that of 1922; ARCHIVES OF NEUROLOGY AND PSYCHIATRY, 1,248, a gain of 45 over 1922; ARCHIVES OF DERMATOLOGY AND SYPHILOLOGY, 1,314, a loss of 2 subscribers over that of 1922, and the ARCHIVES OF SURGERY, 2,676, a loss of 255 subscribers over that of 1922.

The profit and loss on the special journals for the last two years is shown in the table:

	1922	1923
Internal Medicine	Gain $2,730.75	Loss $ 379.38
Children's Journal	Gain 6,206.62	Gain 4,558.19
Neurology and Psychiatry	Loss 510.98	Loss 550.09
Dermatology and Syphilology	Loss 1,252.45	Loss 2,814.26
Surgery	Gain 2,092.91	Gain 2,659.93

The profit from the publication of all the special journals was $3,474.39.

ARCHIVES OF OTOLARYNGOLOGY

On the request of a large number of Fellows who specialize in diseases of the ear, nose and throat, the Board has decided to publish another special journal—the ARCHIVES OF OTOLARYNGOLOGY. Publication will be begun on or about Jan. 1, 1925. The following Fellows have been elected by the Board to serve as the Editorial Board of the new journal: Drs. George E. Shambaugh, Chicago (Chairman); Isidor Friesner, New York; Chevalier Jackson, Philadelphia; Robert C. Lynch, New Orleans; Greenfield Sluder, St. Louis, and Eugene A. Crockett, Boston. The members of the Editorial Board were selected from nominations made by a large number of Fellows who specialize in otolaryngology.

It must be borne in mind that all of these periodicals are of special character, and appeal to the physician who is practicing in some narrow field rather than to the general practitioner. The circulation of each one will never be large, and it is not expected that a profit of any importance will ever be made from their publication. The earnings of each one of the special journals can probably be made larger by carrying a reasonable number of selected and high class advertisements in each issue. The Board is of the opinion that a reasonable amount of advertising should be carried in the special journals, and that any advertisement which is good enough for one of the Association's publications should be acceptable for all the publications of the Association. An objection has been made to advertising in the special journals on the plea that they are scientific. So is THE JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION—not one whit less scientific than the special journals.

The board believes that, so far as possible, all periodicals published by the Association should be carried on without a loss; but these special journals are of such advantage and importance to the medical profession and to American medicine that they should be continued even though there may be a loss in money in publishing them.

QUARTERLY CUMULATIVE INDEX

Last year the Board called attention to the circulation of the QUARTERLY CUMULATIVE INDEX, which reached 1,129 and was considered satisfactory.

The circulation for 1923 was 1,201, a gain of 72 over the circulation in 1922. The foreign list is creeping up gradually, and there is every reason to believe that this will increase, as all important medical libraries abroad will subscribe for it. The foreign subscribers for 1923 were 147, an increase of 21 over 1922.

There was a loss of $8,092.94 in the publication of the INDEX for 1923, as compared with a loss of $5,087 in 1922. This can be accounted for by an increase in the number of pages and an additional expense in the conduct of the Association library.

Although the INDEX is issued at a loss, it must be remembered that it is one of the means by which the Association promotes scientific medicine and indicates to the world what the American profession is doing in medical science.

In this connection, on the recommendation of the Editor, the Board has approved the amplification of the Abstracting Department. This will facilitate and make available better abstracts for THE JOURNAL and the special journals, and will provide these facilities for Fellows and Members of the organization.

In connection with the Library, there is being developed a package lending service which will provide Fellows and subscribers with packages of reprints and publications on outstanding medical subjects. These may be used for reference and then returned. The cost will be nominal, and calculated merely to pay expense of sending.

HYGEIA

This magazine is now conducted by an editorial board consisting of Drs. John M. Dodson, Morris Fishbein and Arthur J. Cramp, with Miss Jane Pine as managing editor. To judge from reports received from physicians and laymen, HYGEIA seems to meet general approval and to justify the Association in launching it as a means of education of the public in personal hygiene and public health.

From the beginning, the efforts of the Subscription Department have been energetic and well directed in the attempt to extend its circulation. At the beginning, eight months' subscription was offered at one dollar, one-half the regular price. Later a reduced price was fixed for clubs, premiums were given, including a 9 inch statue depicting HYGEIA; advertisements were run in local papers of selected communities; a representative of HYGEIA attended meetings of educational and dental associations in the effort to gain subscriptions; sample copies and a special letter were sent to home owners in selected communities; four national life insurance companies volunteered to place a descriptive circular of HYGEIA in all letters sent to policyholders, and other methods have been utilized to secure subscriptions to the periodical.

The total circulation of HYGEIA, Dec. 31, 1923, was 23,687. Of these subscribers, 14,175 were physicians, including those resident in the United States and its insular possessions, in Canada and other foreign countries, in the navy and in the army. The number of laymen who are subscribers is 9,512. Probably one half of the copies going to laymen were ordered by physicians. Much credit must be accorded to such physicians for their hearty cooperation in extending the circulation of the magazine. Eight county medical societies in as many states sent in 2,422 paid subscriptions, the Allegheny County Medical Society of Pennsylvania taking the lead with 1,670 subscriptions.

As anticipated by the Editor and General Manager and by the Board, the publication of HYGEIA is an expensive venture. The total expense for its publication in 1923 was $90,496.50; the income from subscriptions, advertising etc., was $51,505.88, making a net loss of $38,990.84.

Based on the experience of last year, it is fair to infer that it will be several years before HYGEIA becomes a self-supporting venture of the Association. It is a splendid means of educating the public in personal hygiene, in the principles of public health and in the accomplishments of modern medicine. The Board believes that the Association should continue its publication. It must be recognized that, if HYGEIA is to fulfil its mission and if it is to be carried on without financial loss to the Association, it must receive support from a greater number of Fellows and Members of the Association. If a majority of the Members and Fellows of the Association would become regular subscribers and induce their patients and friends to take the magazine, the success of the magazine would be assured. Without this sincere cooperation on the part of the Members and Fellows, the best directed efforts of the Subscription Department at headquarters will afford moderate success at best.

COUNCIL ON PHARMACY AND CHEMISTRY

The aims, objects and accomplishments of the Council have been discussed in these reports so many times since its cre-

tion, nineteen years ago, that it is practically impossible to say anything about it without repeating. In these nineteen years, this council, which was ridiculed and damned by all the interests concerned (including those who were foisting all kinds of preparations on the profession and also by medical journals) but which has had the support from the beginning of a large majority of the general practitioners and here and there of a specialist, has brought about a revolution in the field of therapeutics that was thought impossible at the time the movement was started. It is only necessary to go abroad—to Great Britain, France or Germany—to observe the conditions that existed in this country twenty years ago. Undoubtedly the Council's work has been reflected to a certain extent in all these countries and has had some influence; nevertheless, the present conditions in most other countries are bad. As evidence of this, one need only look at the advertising pages of most of the foreign medical periodicals.

The old problems concerning the out-and-out nostrum and proprietary mixtures have been solved to all practical intents and purposes. Although scarcely a month passes that some one does not attempt to introduce such preparations, the fact is that not a single proprietary preparation of the shotgun mixture type has been successfully introduced to the medical profession of this country since the Council was started. The present-day problems are those connected with the use of biologic products as therapeutic agents. We need not enlarge on this point, nor on the seriousness of existing conditions.

The Council's cooperation is sought by investigators and manufacturers before they attempt to offer any medicinal products to physicians. As illustrations, mention might be made of the cooperation offered to Dr. Hugh Young and his collaborators in connection with the product flumerin; and of that to Professor Luckhardt and his co-workers in the study of the anesthetic ethylene, as well as to the manufacturers who are preparing to supply this preparation. Similarly, the recent favorable reports regarding the bismuth salts in the treatment of syphilis have stimulated manufacturers to take up the production of such preparations, and some of these are consulting with the Council before marketing their products. These facts are mentioned to indicate the difference in the work today and when the Council was created. It should be emphasized also that the Council is more respected today by the large manufacturing concerns than ever before; concerns that ignored or openly opposed the Council seven or eight years ago are today consulting it before putting out a preparation.

Again we would remind you of the fact that the members of this Council are devoting much time and thought to this work purely from altruistic motives and without remuneration.

During the year, a new edition of Useful Drugs has been issued. It contains all the newer drugs, such as chaulmoogra oil and its ester, insulin, diphtheria toxin-antitoxin, and quinidin sulphate, which seems to have become recognized as an important adjunct in the treatment of certain forms of heart disease. This book has been quite influential in eliminating the many useless drugs that encumbered not only our textbooks on therapeutics and materia medica, but also the pharmacopeia.

Mention should be made of two reports issued by the Council during the year: (1) "Progress and Conservatism in Therapeutics"—an appeal issued by a committee made up of the clinical members of the Council to physicians; and (2) "Intravenous Therapy," which sets forth the limited indication for this all-too-popular form of administering drugs.

The Chemical Laboratory

The value to organized medicine of maintaining its own Chemical Laboratory for making careful scientific investigations is becoming more and more evident, particularly when comparisons are made with conditions in other countries. During the year the laboratory has published articles on the incompatibility of mercurochrome with alkaloids, on the comprehensive examination of the chloramine antiseptics—and a number of other equally interesting subjects. It has continued to aid the Council on Pharmacy and Chemistry in the standardization of new drugs, and also has furnished the Propaganda Department with the analysis of a number of newly introduced "patent medicines." The number of inquiries from physicians on chemical problems has increased greatly and the formulation of replies consumes much of the chemist's time.

The laboratory now occupies new quarters planned in detail to meet the needs of modern investigators. Among other features, which it did not possess previously, are a chemical store room adequate for future needs, a large steel cabinet for the filing of the specimens which have been brought to its attention, a small but efficiently arranged departmental library and a well organized record room devoted mainly to the files of the Council on Pharmacy and Chemistry. The laboratory now is equipped to do practically any type of chemical drug investigation.

For some years, the Board has provided funds for the encouragement of therapeutic research. This money is appropriated by the Council's Committee on Therapeutic Research to aid in the investigation of therapeutic questions. The grants are made to investigators of recognized ability and, in the main, provide funds for the purchase of materials. Many of the studies are carried out by, or under the direction of, the members of the Council.

The following is a list of the investigations conducted under the committee that were published during 1923:

1. "Study of a Digitalis Body Which Is Eliminated Rapidly After its Intravenous Injection in the Cat." by Soma Weiss and Robert A. Hatcher; *Journal of the American Pharmaceutical Association*, January, 1923.

Grant 82. S. P. Littman, formerly demonstrator of dermatology, Western Reserve University (1922-1923 session); $50, to investigate the efficiency of arsphenamin suppositories, especially in congenital syphilis of infants.

During 1923 the following grants were made:

Grant 86. E. A. Doisy, professor of biologic chemistry, St. Louis University School of Medicine; $250, to investigate the isolation and study of the properties—chemical and physiologic—of the active constituents of the ovary.

Grant 87. C. W. Greene, professor of physiology and pharmacology, University of Missouri; $250, to continue the work for which Grant 83 ($250) was made, in August, 1922, viz.: to investigate distribution of nitrous oxid and oxygen in the blood during anesthesia.

Grant 88. M. S. Dooley, professor of pharmacology, Syracuse University College of Medicine; $75, to aid in the completion of an investigation, involving a comparison of the results of intramuscular injections of various preparations of digitalis in the frog, with colorimetric assays of the drug.

The following requests for grants have been received:

H. G. Barbour, professor of physiology and pharmacology, University of Louisville; $150, to cover cost of rats and mice for an investigation of the trypanocidal effect of the aliphatic arsenicals which have just been synthetized by Dr. Palmer in Treat Johnson's Laboratory at Yale.

James B. McNair, A.B., A.M., special student, University of Chicago; $400 to $500, to: (1) continue the study of the pathology of *Rhus* dermatitis; (2) determine the efficiency of the Sticker method of treatment of *Rhus* dermatitis; (3) continue the experimental chemotherapy of *Rhus* dermatitis. (The committee is considering issuance of $250 on condition that further expenses will be assumed by the university at which investigation is made, or other sources.)

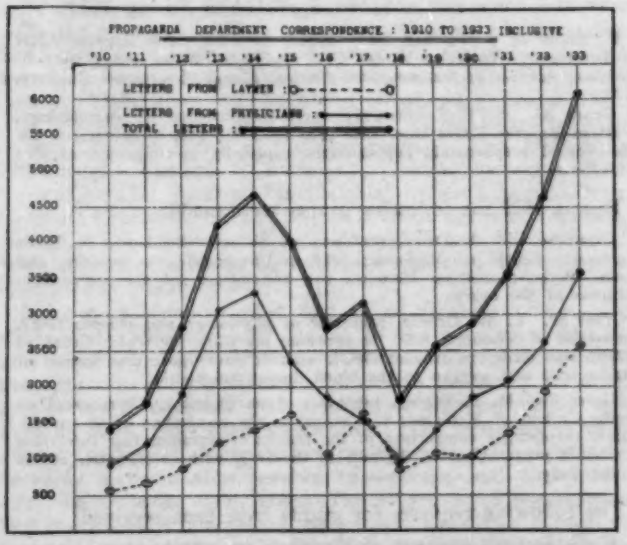
Committee on Local Anesthesia.—Grant 81 is the special appropriation which you made for the continuation of the work of collecting information relating to accidents from the use of local anesthetics. This committee has obtained information in regard to accidents from local anesthetics which will be a distinct contribution to our knowledge on the subject and will, without question, be the means of saving lives. The committee published a preliminary report in The Journal, September 15, and the complete report, March 15.

The Propaganda Department

The activities of the Propaganda Department during the last year have been far greater than ever before. The medical profession and the general public have shown more interest in the educational work of this department than has been shown in any other year in the history of the department. This was foreshadowed by the number of letters of inquiry we received from laymen during 1922; the number of these was in excess of any previously received. In 1923, the number of letters from laymen increased 25 per cent. over those received in 1922.

The accompanying graph gives an interesting index of the interest exhibited by the medical profession and the public in the Propaganda Department. It shows the number of letters of inquiry received and answered by the department from physicians and laymen, respectively, and from both together. It covers the years 1910 to 1923, inclusive.

It will be seen by the graph that the maximum prewar interest in the Propaganda Department occurred in 1914. With the coming of the World War, the correspondence steadily declined, reaching its minimum in the last year of our participation in the war. One interesting point is worth attention. It will be seen that, during the year 1917, while the Propaganda Department received a minimum number of letters from physicians, the number of inquiries from laymen increased over that of the preceding year. These facts are easily accounted for by the conditions that obtained in the medical profession at that time. The physicians of the country had no time to write letters. On the other hand, the public's revival of interest was doubtless due to the educational work done by various agencies, including the medical profession, especially in relation to the wastefulness of the nostrum from an economic standpoint and its dangers to the public health.



The publication of the Association's lay journal HYGEIA is undoubtedly responsible for at least part of the increase of interest shown by the public in the work of the Propaganda Department. Before this journal was founded, practically the only point of contact between the American Medical Association and the public was through the Propaganda Department. With the public's growing interest in HYGEIA, the number of inquiries to come into the Propaganda Department for the coming year will doubtless be doubled. In addition to HYGEIA, the Association has developed another point of contact through the newspaper extension of its public health work. This activity, which is described in detail elsewhere, is bringing in inquiries from those cities in which the newspaper health articles are run.

A study of the letters received during the last year by the Propaganda Department shows that there has also been a marked increase in the number of inquiries from certain groups, teachers and professors in schools and colleges, officials of federal and state departments or bureaus, organizations interested in raising the standard of advertising, and especially from those in charge of the health and welfare work in large manufacturing concerns. The profession generally does realize the extent to which the Propaganda Department has been able to bring its educational work to the attention of the rising generation. There has been an increasing number of school and college textbooks on such subjects as general science, civic science, civic biology, and hygiene, which devote some space to the social and economic evils of nostrums and quackery. The Propaganda Department has given freely of its time to the authors of such textbooks, and in some instances, has furnished illustrative material for such books. As a result, these books urge the student to write to the Propaganda Department for information and to obtain the published matter put out by the department. When the Propaganda Department received from a single school alone nearly 150 letters of inquiry within a short period of the time used in covering this subject in the classes, the value of the educational work that the Propaganda Department is doing will be realized.

The two volumes of "Nostrums and Quackery" have a steady sale. It is finding its way onto the reception room tables of more and more physicians, and, of even greater importance, it is being added to the reference libraries of schools and colleges. The inexpensive pamphlets issued by the Propaganda Department are kept up to date. In this connection, it is worth bringing out the fact that practically every layman who writes to the Propaganda Department receives a complimentary copy of one of these pamphlets. Every pamphlet issued has the inside front cover devoted to a brief outline of the American Medical Association and its activities. As more than a millon of these pamphlets have been issued during the last fifteen years, it is evident that the public is gradually learning what the American Medical Association is and what it stands for.

A special reprint has been issued during the last year dealing with the Abrams cult. Thousands of copies of this reprint have been distributed, and the effects are already apparent. The exploitation of Abrams' theories and practice has markedly changed in character. Whereas, at first, some of the more credulous but reputable members of the medical profession were disposed to give the Abrams theories serious consideration, the present disciples of this cult are to be found among the less reputable of the "drugless healer" type and the more mercenary members of the medical profession.

The Educational Posters prepared by the department are still in great demand. They are being used in the various health shows, in state and county fairs, and in other meetings where there is interest shown in matters pertaining to the public health. More important still, they are being used to an increasing degree by teachers in the class room. There has been an especially large demand for some of the miniature reproductions of these charts to be put directly into the hands of the school children.

The stereopticon slides which the department has prepared and arranged in the form of a lecture are in greater demand than ever before. Physicians, public health officials, and school and college teachers are using these slides, and the department now has several sets that are in more or less constant circulation.

COMMITTEE ON SCIENTIFIC RESEARCH

The Committee on Scientific Research is composed of Dr. Ludwig Hektoen, chairman, Chicago; Dr. F. F. Russell, New York; Dr. Herbert C. Moffitt, San Francisco; Dr. G. N. Stewart, Cleveland, and Dr. Charles H. Frazier, Philadelphia. At the annual meeting in February, 1923, the Board appropriated $1,500 for the work of the Committee on Scientific Research. During the year the following grants were made by the committee:

Grant 61: Yandell Henderson, Department of Physiology, Yale University, $119.46, to complete purchase of kymograph, for which Grant 57, of $250, was made in 1922.

Grant 62: A. C. Ivy, Department of Physiology, University of Chicago, $150, for study on secretion of gastric juice.

Grant 63: R. A. Spaeth, School of Hygiene and Public Health, Johns Hopkins University, $200, for continuation of work on influence of fatigue on infection, for which Grant 55, of $200, was made in 1922.

Grant 64: E. R. LeCount, Rush Medical College, $200, for study of relations of tuberculosis and mitral disease.

Grant 65: L. E. Hines, St. Joseph's Hospital, Chicago, $300, for investigation of intestinal flora in diarrhea.

Grant 66: H. G. Rowell, New Bedford and later of Columbia University, $250, to support study of nutrition of school children.

Grant 67: Charles E. Simon, School of Hygiene and Public Health, Johns Hopkins University, $100, to aid in work on experimental measles.

The status of work under these and previous grants still pending is summarized briefly as follows:

Grant 39: E. O. Jordan, University of Chicago, $1,000 (unpaid balance, $400), critical review of literature on influenza epidemic of 1918 and 1919, with synopsis of results. This important work is pra-

tically finished, except for one statistical section, and the report will form a monograph of good size.

Grant 45: C. G. Huber, University of Michigan, $400, nerve repair. This work is finished and the report is ready for publication, possibly in one of the volumes of the history of the World War.

Grant 51: R. Drury and Thomas Addis, Medical School of Stanford University, $300, secretion of urea. Work finished and the results published in several articles in the *Journal of Biological Chemistry* **55**, and in an article in the *American Journal of Physiology* **65**. Full account has been rendered of the expenditure of the grant money, and application for a new grant is before the committee.

Grant 52: W. H. Welker, University of Illinois, $400, chemical study of bacterial proteins. This work is nearing completion.

Grant 53: F. P. Underhill, Yale University, $300, metabolism of inorganic salts. Work is still in progress; one article has been published in the *Journal of Biological Chemistry*. Part of this grant, $370, was expended for platinum crucibles, which, according to the rules, remain the property of the American Medical Association.

Grant 54: Albert Keidel, Johns Hopkins Hospital; $350, arachnoid fluid in early syphilis. Work is practically completed, and it is planned to present the results before one of the sections next June.

Grants 55 and 63: Reynold A. Spaeth, Johns Hopkins School of Hygiene and Public Health, $400 in all, fatigue and infection. This work is in active progress; full account has been rendered of expenditures, mostly for animals and for assistance in their care.

Grants 57 and 61: Yandell Henderson, Yale University, $369.46 in all, for kymograph. A brass plate has been placed on the instrument, stating that it is the property of the American Medical Association. Work is in progress on the relative importance of carbon dioxid and oxygen in nervous control of respiration.

Grant 58: E. B. Krumbhaar, Philadelphia General Hospital, $225, inguinal granuloma. One article on the results of this work has been published in the *Journal of Infectious Diseases*, and further reports will be made later.

Grant 59: F. W. Mulsow, University of Iowa, $225, culture mediums for the gonococcus. Results of interest have been obtained, and work is to be continued.

Grant 60: H. N. Evans, University of California, $400, endocrine glands. The work by Dr. Evans and his associates under previous grants has been continued and a note on the result published in the *Anatomical Record*, **25**. This newer work deals with the hormones in the anterior lobe of the hypophysis. The money has been used to obtain fresh materials from slaughter houses. Application for a new grant is at hand.

Grant 62: A. C. Ivy, Physiological Laboratory, University of Chicago, $150, influence of amino-acids and amins on gastric secretion. Work has been finished, and results are about to be published.

Grant 64: E. R. LeCount, Rush Medical College, $200, tuberculosis and mitral disease. Work is in progress.

Grant 65: L. E. Hines, St. Joseph's Hospital, Chicago, $300, intestinal flora in diarrhea. Results of work under this grant will be published shortly.

Grant 66: H. G. Rowell, New Bedford and Columbia University, $350, nutrition studies in children. Paper giving results of work under this grant has been accepted by the *American Journal of Public Health*.

Grant 67: Charles E. Simon, Johns Hopkins School of Hygiene and Public Health, $100, study of experimental measles. This grant was made recently.

The following applications for grants in aid of research are on file:

Linda B. Lange, Johns Hopkins University, $400, for aid in study of effect of exactly controlled diets in experimental tuberculosis in the rat.

Hugh Grant Rowell, Columbia University, $250, to aid in nutrition studies of children, based on available records of Horace Mann schools.

Herbert N. Evans, University of California, $400, to aid in preparation of a relatively protein-free, easily absorbable and bacteria-free fluid containing the anterior hypophysial hormone or hormones as determined by influence on growth, on metabolism and on other endocrines, especially on the sex glands, and for use in cases of Froehlich's syndrome, obscure growth dystrophies and hyposexual conditions.

Thomas Addis, Stanford University Medical School, $300, to aid in work on factors influencing rate of compensatory hypertrophy of remaining kidney after unilateral nephrectomy.

Reynold A. Spaeth, Johns Hopkins University, $200, to aid in further study of influence of fatigue on infection. Applicant has received two grants of $200 each.

Max and G. Egnes Seham, Minneapolis, $1,800, for study of the health of the school child, with reference to social, economic, physical and psychologic environment.

Victor C. Jacobson, Union University, Albany, N. Y., $300, experimental investigation of implantation tumors of the ovary and peritoneum.

BUILDING

The additions to the buildings at headquarters have been satisfactorily completed. On the 31st of December, 1923, there had been paid $350,935.13 for construction, leaving a balance of approximately $100,000 for future payment. The cost of construction of the additions to the buildings has been made without resorting to the sale of the reserve funds of the Association.

The Association now possesses a splendid fireproof building forming 100 feet on Dearborn Street and 160 feet on Grand Avenue with six stories and a high basement, of steel and concrete construction, which is substantial and a credit to organized medicine of the United States. It will meet, for several years to come, the full needs of the Association in carrying on its work.

THE BUREAU OF LEGAL MEDICINE AND LEGISLATION

NATIONAL PROHIBITION ACT

No developments under the National Prohibition Act have occurred since the meeting of the House of Delegates in June last. Regulations then in contemplation by the Commissioner of Internal Revenue have not been issued. The appeals of the Association are still pending for the limitation of retail sales of liquor to bottled-in-bond packages and for the removal of the physician's obligation to specify on each prescription for liquor the name of the druggist who is to fill it. Cases brought by physicians to determine the constitutionality of the National Prohibition Act so far as it relates to the medicinal use of liquor have not been finally decided, and there has been, therefore, no change in the practice of the Prohibition Unit with respect to the amount of liquor a physician may prescribe and the number of prescriptions he may issue. Bills have been introduced into Congress to amend the National Prohibition Act, but have not been acted on.

Wholesale Liquor Permits and Sale of "Patent Medicines."—The demand made by the Prohibition Unit on a wholesale druggist, reported last year, that he sell "patent medicines" if he would obtain a permit to sell liquor, has not been extended to other druggists, so far as is known. It is understood that the making of such a demand never had the sanction of the Prohibition Commissioner.

NARCOTIC LAWS

Harrison Narcotic Law; Reduction of Tax.—Complaint was made to the committee appointed by the Secretary of the Treasury to draft a revision of federal tax laws, of the injustice of continuing the war tax imposed on physicians under the Harrison Narcotic Act, and an argument was submitted in support of a plea for relief. Like action was taken with respect to the Committee on Ways and Means of the House of Representatives, and the case was submitted orally to the chairman of the committee. At the close of the year, the matter was pending in committee.

Model State Narcotic Law.—The drafting of a uniform state narcotic law is still under consideration by a committee appointed by the National Conference of Commissioners of Uniform State Laws.

VETERANS' BUREAU AND CHIROPRACTIC

The Veterans' Bureau maintained at the close of the year the same policy with respect to the training of veterans as chiropractors as that stated by the director in his telegram of June 28 last, read at the San Francisco Session, as follows:

. . . Necessary to stand by existing contracts which were previously made with certain chiropractic schools and only those men to be entered who have educational qualifications which would permit them to enter Class A medical college. No additional men have been entered in training and no more will be entered when men now in training have completed their courses and present contracts have expired.

SHEPPARD-TOWNER MATERNITY ACT

The U. S. Supreme Court, June 4, 1923, decided that the pending cases to determine the constitutionality of the Sheppard-Towner Act must be dismissed for want of jurisdiction, and did not consider their merits. The constitutionality of the act remains, therefore, undecided.

FEDERAL INCOME TAX

The Bureau of Legal Medicine and Legislation filed a brief with the committee appointed by the Secretary of the Treasury to draft a revision of federal tax laws, urging the claims of the medical profession to the right to deduct traveling expenses incident to attendance at meetings of medical societies and to deduct the expenses of postgraduate study, in the computation of federal income taxes. The committee having failed to recommend the relief sought, a similar brief was filed with the

Committee on Ways and Means, of the House of Representatives. At the close of the year, the matter was pending in that committee.

DEFENSE OF MALPRACTICE SUITS

The investigation of medical defense and indemnity in connection with malpractice suits, undertaken by the bureau under the resolution adopted by the House of Delegates in 1922, remains where it stood when the report of the bureau was submitted to the Board of Trustees in May last. No developments in this field have come to the notice of the bureau, except that California, the one state that provided its members with indemnity as well as with defense, has discontinued providing indemnity.

MEDICAL PRACTICE ACTS

The inadequacy of many of our medical practice acts to protect the public against incompetence and quackery has become increasingly apparent. The number and kind of inquiries received from state associations and others for aid in drafting new acts shows a widespread realization of the situation, and the necessity for additional legislation has been emphasized by recent developments in Arizona and Connecticut.

ANIMAL EXPERIMENTATION

From legal and legislative standpoints there have been no developments in the field of animal experimentation since the last annual report of the bureau was submitted. Other aspects of this matter lie within the purview of the Committee on Protection of Medical Research.

LYE AND OTHER CAUSTIC SUBSTANCES; LABELING

The bureau has cooperated with the Committee on Lye Legislation, Section on Laryngology, Otology and Rhinology, in drafting a federal law to regulate the labeling of household packages of lye and other caustic substances in interstate and foreign commerce, and a model state bill, to regulate the sale of packages sold locally. As the year ended, efforts were being made to procure the introduction of such legislation into Congress and into the several state legislatures then about to assemble.

CLINICAL LABORATORIES; ORGANIZATION AND CONTROL

Two resolutions were adopted by the house of Delegates, in June last, relative to the organization and control of clinical laboratories. One resolution directed the Bureau of Legal Medicine and Legislation to confer with representatives of the American Chemical Society and the Society of Bacteriologists and Pathologists regarding the matter. The other authorized the President to appoint a special committee on the subject. Action was under way at the close of the year looking toward the appointment of the committee of the American Medical Association, and the bureau was arranging for the appointment of committees to represent the American Chemical Society and the American Association of Bacteriologists and Pathologists in order that a conference might be held.

SUTURES AND SURGICAL LIGATURE; REGULATION OF TRAFFIC IN

A bill is pending in the House of Representatives to regulate interstate traffic in sutures and surgical ligature material by a system of licenses and inspection similar to that now in force with respect to viruses, serums, etc.

UNITED STATES INDIAN OFFICE; MEDICAL SERVICE

The bureau has endeavored to keep in touch with the movement looking toward the improvement of the terms of employment and the working conditions of physicians in the Indian Service. The matter was still in process of development when the year closed.

PATENTS AND QUACK MEDICINES

The issue by the Patent Office of a patent on a consumption cure led to an inquiry by the bureau to determine the conditions under which such patents are issued. The Patent Office apparently is without adequate means for passing on the merits of applications of this class, and authority to avail itself of the resources of other branches of the government. It seems to be the policy of the Commissioner of Patents to discourage applications for patents on nostrums of this character, but as such discouragement is accompanied by a suggestion that the trademark law is available for the protection of one who would exploit such compounds, the discouragement is of more than questionable value so far as the protection of the public is concerned.

CLINICAL THERMOMETERS

A movement has been inaugurated by certain manufacturers of clinical thermometers to procure federal legislation requiring adequate testing of all such thermometers before they are put upon the market, and the cooperation of the American Medical Association has been requested. The movement is based apparently on the fact that Massachusetts and Connecticut have enacted laws on the subject, and other states may do likewise; and a diversity of state requirements will work a hardship on the manufacturers. The federal Bureau of Standards has called a conference in Washington, January 30, to consider the matter.

STATE LEGISLATION

Forty-three state legislatures met in 1923, and the bureau rendered such assistance as was practicable to the legislative committees of the several state associations in their efforts to promote or to combat legislation. It is impossible to record within the compass of an annual report the exact nature or extent of such cooperation; it covers too a wide field and is too spasmodic and diffuse. The extent to which aid can be rendered is not altogether within the control of the bureau, but depends largely on cooperation by the state associations. The bureau had been organized less than a year when the 1923 sessions of the state legislatures convened, and the machinery for coordinating the activities of the bureau with the activities of the several state legislative committees had not been perfected; the results during 1923 were therefore probably all that could be hoped for. The bureau experienced difficulty in keeping in touch with legislative activities in the states. Appeals to legislative committees for copies of bills introduced or advice as to how copies of such bills might be obtained, even coupled with the statement that the bureau stood ready to defray the cost, met with but scant response. Efforts to procure copies of such bills through private agencies failed, in most cases because of the exorbitant charges for the service. Every state legislative committee must procure copies or bills for the use of its members if it is to do effective work, and it is hoped that hereafter such committees will arrange to provide copies for the bureau at the same time. Such a record of projected state legislation as such bills afford, assembled in the bureau, will give timely notice of national movements of medical interest and permit preparation to help or hinder such movements as circumstances dictate. Moreover, the fact that bills of silimar or even identical purport are not infrequently introduced into the legislatures of two or more states will make the work of the state association and of the bureau in one state often of value to other state associations, if arrangements can be perfected whereby one can know what the others have done and are doing. To perfect plans for the more efficient coordination of the work of the bureau and the several state associations, it is planned to call a conference of representatives of the state associations to meet in Chicago, in connection with the approaching session of the Association.

FIELD WORK

During 1923, the executive secretary visited the following places on the business connected with the bureau: New York; New Haven, Conn.; Dayton, Ohio; Washington, D. C.; San Francisco, and Boston.

PROTECTION OF MEDICAL RESEARCH

With the abolition of the Council on Health and Public Instruction, it was decided to make the Committee on Protection of Medical Research a standing committee under the direction of the Board of Trustees, and that the committee should be so constituted that the term of one member should expire each year. The committee as constituted, with the term of service, is as follows:

Dr. Simon Flexner	1925
Dr. George W. McCoy	1926
Dr. William Ophuls	1927
Dr. William Pepper	1928
Dr. W. B. Cannon, chairman	1929
Dr. A. J. Carlson	1930

In the protection of medical research, one of the outstanding events of the year is the organization by a group of laymen of the Society of Friends of Medical Progress, Inc. Dr. Charles W. Eliot, President Emeritus of Harvard University, is president of the organization, and Mr. Ernest Harold Baynes, the naturalist, is the field secretary. The society has issued some instructive educational pamphlets and has authorized the organization of affiliated local, state, county and municipal chapters. The protection of medical research by the organization of laymen should receive the recognition and support of members of the medical profession.

During the year, the Baylor University College of Medicine, Dallas, Texas, the University of Louisville Medical Department and the medical schools of St. Louis have been able to arrange with the local authorities, with the approval of groups of responsible citizens, to obtain impounded dogs for experimental purposes.

Bureau of Health and Public Instruction

At the annual session at San Francisco, 1923, the House of Delegates authorized the Board of Trustees to create a Bureau of Health and Public Instruction at the Association headquarters. The bureau has been organized, and Dr. John M. Dodson of Chicago has been made the executive secretary.

The functions of the bureau include the activities of the Association in the attempt to educate the public in the principles of personal hygiene and public health.

ACTIVITIES OF THE BUREAU

In the attempt to educate the public in matters of personal hygiene and public health, the following agencies have been utilized:

1. Hygeia. See page 1942.

2. The Clip Sheet, in the form of abstracts of the more important articles prepared each month from Hygeia, which is sent to newspapers, farm journals and lay magazines. The Clip Sheet is sent also to the secretaries of county medical societies and to other physicians with requests that they undertake to secure the insertion of the material in local newspapers.

3. Through the North American Newspaper Alliance. The newspapers of this alliance reach 12,000,000 readers each week. These newspapers have agreed to publish a health column edited by a member of the editorial board of Hygeia from abstracts of articles printed in Hygeia and in The Journal, including questions and answers on health topics taken from Hygeia.

4. Through the *Woman's World Magazine*, with a circulation of 1,100,000, which has agreed to publish one article each month, which is prepared under the direction of the bureau.

5. Through pamphlets and reprints, aproximately ninety in number, on health topics covering such subjects as infant welfare, communicable diseases, cancer and conservation of vision.

6. Through lectures and talks by physicians and others to lay organizations. In this activity of the bureau, attempts are made to cooperate with constituent state and county medical societies and with state, county and city boards of health. The bureau attempts to supply material on health topics for members of the Association and others who desire to deliver such addresses. This material includes lantern slides, other illustrative material, and information about movie films.

7. Through radio broadcasting. This avenue of publicity has been utilized through the cooperation of the officials of the Westinghouse Station KYW in Chicago. This broadcasting has included readings from advanced sheets of Hygeia and from material furnished by the Propaganda Department. The announcer emphasizes the source of the material broadcasted as coming from Hygeia through the American Medical Association. This method of educating the public can be extended to include other broadcasting stations in the country.

8. Through exhibits, both permanent and temporary, consisting of posters and other material illustrating the causes and methods of prevention of disease and injury, depicting the harmfulness to the public of nostrums and quackery and tables indicating the accomplishments of medical science in the prevention of disease and in more efficient treatment of the sick and injured through higher standards of medical education, improved hospital service and the like.

Exhibits of this kind have been made in connection with the Scientific Exhibit of the Association at the annual sessions, and a modified form was made at the meeting of the National Education Association at Oakland, Calif., in July, at the meeting of the American Dental Association at Cleveland, in September, and at the meeting of the American Hospital Association at Milwaukee, in October, 1923. At the request of the bureau, the Board has under consideration the question of the establishment of permanent exhibits on health at headquarters, and also in the Smithsonian Institution at Washington and at the National Museum of Safety in New York.

9. Through cooperation with other organizations. The bureau has assumed the cooperative relationship that was formed in 1911 with the authority of the House of Delegates with the National Education Association. The joint committee composed of members of the two organizations has accomplished much in promoting the teaching of public health in schools and colleges. Reports of the joint committee have been made in the past to the House by the Council on Health and Public Instruction.

PERIODIC EXAMINATION OF THE APPARENTLY HEALTHY

At the annual session in 1923, the Council on Health and Public Instruction included in its report a recommendation that the House approve of periodic health examination carried on under the auspices of the state constituent and component county medical societies, and a blank form of record of physical examinations of this character was presented by the Council and approved.

As the promotion of periodic health examinations includes the activities of the Secretary of the Association and of the Council on Medical Education and Hospitals, the executive secretary of the bureau, Dr. John M. Dodson, has cooperated with Dr. Olin West and Dr. N. P. Colwell in carrying on this work. An article on this subject addressed to the secretaries of the state and county medical societies appeared in the October number of the American Medical Association Bulletin. The subject was discussed at the conference of state secretaries in November. At this conference, Dr. B. L. Bryant, secretary of the Maine Medical Association, reported the method of organization adopted in this work by the medical societies, the State Public Health Association and the lay organizations of Maine in the education of the public of the need of periodic health examination, and also reported on the practical measures adopted for carrying on the work. The Illinois Society for the Promotion of Periodic Examinations, made up in part of lay societies and in part by members of the medical profession, and also the Brooklyn Tuberculosis Association have promoted periodic health examination in a practical way.

The blank form for recording examinations, and copies of the report of the committee made at San Francisco on this subject, have had a large demand from medical societies and lay organizations.

The Board expresses the unanimous opinion that one of the most practical measures in the promotion of periodic health examination can be accomplished through county medical societies by encouraging periodic health examinations by family physicians of the members of families dependent on them.

The Scientific Exhibit

The scientific exhibit at the San Francisco Session was notable for the splendid and practical character of several of the individual displays. This was manifested by the interest shown by a large number of Fellows, who spent much time in study of the exhibits.

The motion picture theater has become a splendid factor of the greatest importance in education and training in diagnosis and in the management of disease and injury. The large attendance at every lecture indicates the popularity of the moving pictures with the Fellows of the Association.

Closer cooperation of the sections of the scientific assembly with the scientific exhibit and the moving picture theater has been brought about by conference with the Council on Scientific Assembly. This is shown by the fact that some papers read before the sections which are illustrated by lantern slides, or by movie films, are also presented by the authors in the moving picture theater. So, too, are some of the charts prepared by authors of papers read in the sections made a part of the scientific exhibit. This cooperation of the sections of the scientific assembly with the scientific exhibit and the motion picture theater is a measure of great practical importance and it is hoped that it will become a fixed policy of the Association.

FIELD SECRETARY

Diligent search by the Board and by the Secretary of the Association to secure a qualified Field Secretary has been unsuccessful. Physicians believed to be qualified for the position, who have been invited to accept the place, have declined generally for the reason that the present occupation was satisfactory and the question of the transfer of the individual and family to Chicago has been a marked factor in the nonacceptance of the invitation.

It is the opinion of the Board and of the Secretary of the Association that it will probably be more feasible and practical to secure a qualified assistant to the Secretary of the Association in lieu of a Field Secretary. With this arrangement, the assistant secretary could carry on much of the time-consuming routine work of the Secretary of the Association, and this would permit the Secretary to go into the field to perform the many duties that really belong to his office. The Secretary of the Association, Dr. Olin West, is splendidly qualified by education, experience and character to go into the field in the performance of many functions which will promote cooperation of the state constituent associations in medical organization looking to the improvement of members of the medical profession in graduate work with increased service to the public and to the economic advantage of physicians. With an efficient assistant secretary of the Association, Dr. West can perform these field duties. The Board recommends that the House of Delegates approve the reorganization of the office of the Secretary of the Association as outlined, in lieu of a field secretary separate from the office of the Secretary of the Association.

EXTENSION GRADUATE MEDICAL EDUCATION

At the San Francisco session, in 1923, the President, Dr. de Schweinitz, recommended that the Association should expend greater energy in postgraduate medical work and especially through the state and county medical societies. The House of Delegates adopted the recommendation of the Reference Committee on Report of Officers that the Council on Medical Education and Hospitals should take up and promote postgraduate medical education in county and district societies.

In March, 1924, the Council on Medical Education and Hospitals, by unanimous action, requested the Board of Trustees to assume jurisdiction of extension graduate medical education, and stated that the Council believed that it should confine its activities to undergraduate medical education, graduate education of physicians in residence at postgraduate schools, and in the standardization of hospitals.

The Board is of the opinion that the Association should give practical assistance to members of the medical profession by promoting their professional advancement at or near their homes. The Association was founded mainly for the purpose of the improvement of medical education in the United States, and it is recognized that the physician in the field is in need of opportunities for continued self-education.

With proper organization, the Association can develop motile or ambulatory clinics consisting of a clinical and laboratory personnel, with laboratory equipment which can be assembled and carried in a motor car and be available for diagnostic and rational therapeutic clinics in county or district headquarters, for a period of two weeks, more or less.

Several such ambulatory clinics can be made available and to operate continuously moving from county to county in a state or states. The personnel would be augmented for short periods by volunteer clinicians.

The practitioners taking advantage of this opportunity could pay a small and reasonable tuition in support of the plan.

To insure its success will require sincere and close cooperation by the Association, the state constituent societies and the state councilors in their several districts. The clinic would cooperate, too, with extension graduate medical education as carried on by state university and other medical schools. It would require at Association headquarters a qualified active physician to promote the project by efficient administration.

The Board recommends that the House of Delegates authorize the creation of a bureau on extension graduate medical education at headquarters under the jurisdiction of the Board of Trustees and the Secretary of the Association.

RESOLUTIONS

At the San Francisco session in 1923, the State Medical Society of New Jersey, through its president, Dr. Wells P. Eagleton, offered a resolution which involved amendments to the Constitution and By-Laws which would disassociate the editorship and general management of the Association, and that an ad interim meeting of the House of Delegates should be held annually at headquarters. These resolutions were referred by the House to the Board of Trustees.

At the autumn meeting of the Board, Nov. 15-17, 1923, after due consideration, the Board unanimously passed resolutions as follows:

1. There is no reason at the present time for any change in the present policy concerning the editorship and general management of the Association or in the Constitution.

2. The Constitution and By-Laws as now constituted provide for an ad interim meeting of the House of Delegates when such a meeting is deemed necessary.

At the autumn meeting the Board also considered the resolution presented to the House of Delegates by Dr. Leigh of Virginia and which was referred to the Board by the House:

Resolved, That the Council on Pharmacy and Chemistry of the American Medical Association be instructed to employ a trained publicity man, preferably a writer with an established reputation, whose duty it should be to get into the lay press, daily papers, rural publications, magazines, etc., articles covering fully and accurately all of the activities of organized medicine.

The Board gave profound consideration to and discussed the subject thoroughly. It was brought out that the Council on Pharmacy and Chemistry cooperated with the Propaganda Department in matters of publicity and that, through THE JOURNAL, volumes on nostrums, quackery and the like, pamphlets and other printed matter referring to nostrums, the cults and the like were widely disseminated to the medical profession and also to the public through clubs, schools, colleges and universities. Therefore, the Board decided that it would be unwise to alter the organized efficient plans of publicity now utilized by the Council.

The Board also considered a second resolution presented by Dr. Leigh, viz.:

Resolved, That the President and Secretary of the American Medical Association be instructed to confer with the medical directors of the larger life insurance companies which do preventive and educational health work with the object of securing their cooperation in educating the public about quacks and nostrums.

On recommendation of the Reference Committee on Medical Education, the House referred the resolution to the Board of Trustees.

Since this resolution involved instruction of the public in public health, the Board referred it to the Bureau on Health and Public Instruction for consideration and to act in accordance with its judgment in the matter.

The several resolutions adopted by the House, and referred to the Board of Trustees for action, have been attended to. Among the subjects of these resolutions may be mentioned the American Red Cross, the Veterans' Bureau, aid for Russian physicians, and the engrossing of the resolutions passed by the House last year in honor of Dr. Simmons.

During the past year, the director of the Veterans' Bureau has requested cooperation of the American Medical Association in the modification of the ratings for compensation of disabled veterans, and also, at another time, for the nomination of representatives of medicine and its specialties, of surgery and its specialties, of qualified men to act in an advisory capacity to the director of the Veterans' Bureau on questions of policy relating to medical problems which occur in the bureau.

The Board has complied with these requests of the director of the Bureau, and through the Secretary of the Board has furnished him with lists of available, qualified physicians and surgeons to assist in the modification of the ratings for compensation of disabled men and also to serve on the advisory committee.

Respectfully submitted.

WENDELL C. PHILLIPS, Chairman,
FRANK BILLINGS, Secretary,
THOMAS McDAVITT,
A. R. MITCHELL,
D. CHESTER BROWN,
OSCAR DOWLING,
CHARLES W. RICHARDSON,
WALTER T. WILLIAMSON,
J. H. J. UPHAM.

ADDENDA TO TRUSTEES' REPORT

SUBSCRIPTION DEPARTMENT

TABLE 1.—The following table indicates the number of copies of THE JOURNAL printed each week, the total number for the year, and the weekly average:

January 6	80,640		July 7	80,105	
January 13	80,374		July 14	80,275	
January 20	80,274		July 21	80,064	
January 27	80,746		July 28	80,242	
		322,034			320,686
February 3	80,415		August 4	80,073	
February 10	80,363		August 11	80,181	
February 17	80,057		August 18	80,283	
February 24	80,412		August 25	80,347	
		321,247			320,884
March 3	81,069		September 1	80,608	
March 10	80,913		September 8	80,349	
March 17	80,585		September 15	80,607	
March 24	80,530		September 22	80,394	
March 31	80,405		September 29	80,270	
		403,502			402,228
April 7	80,175		October 6	80,283	
April 14	80,697		October 13	80,307	
April 21	80,110		October 20	80,349	
April 28	80,167		October 27	80,113	
		321,149			321,052
May 5	80,319		November 3	80,485	
May 12	80,632		November 10	80,361	
May 19	80,493		November 17	80,142	
May 26	90,225		November 24	80,784	
		331,669			321,772
June 2	80,031		December 1	88,556	
June 9	80,351		December 8	90,515	
June 16	80,890		December 15	90,898	
June 23	80,907		December 22	90,265	
June 30	80,013		December 29	84,683	
		402,192			444,917
		2,101,793			2,131,539
Total					4,233,332
Weekly average					81,410

This shows that 4,233,332 copies were printed during 1923—an increase of 128,488 over the number printed in 1922.

PERCENTAGE OF PHYSICIANS RECEIVING THE JOURNAL

TABLE 2.—The number of physicians in the United States receiving THE JOURNAL and the approximate percentage in each state is indicated in the table. The copies to the United States Army, U. S. Navy, U. S. Public Health Service, etc., are not included.

State	Number Receiving JOURNAL	Physicians In State 8th A. M. Directory	Approximate Percentage 8th A. M. Directory
Alabama	785	2,313	34
Arizona	233	372	63
Arkansas	673	2,303	29
California	4,799	7,549	64
Colorado	1,025	1,882	54
Connecticut	1,211	1,727	70
Delaware	132	265	50
District of Columbia	678	1,924	35
Florida	599	1,348	44
Georgia	1,288	3,274	39
Idaho	246	452	54
Illinois	6,984	10,716	65
Indiana	2,041	4,353	47
Iowa	1,918	3,490	55
Kansas	1,286	2,492	52
Kentucky	1,068	3,155	34
Louisiana	923	2,058	45
Maine	495	1,067	46
Maryland	1,296	2,349	55
Massachusetts	3,775	5,977	63
Michigan	2,571	4,653	55
Minnesota	1,795	2,774	65
Mississippi	474	1,792	26
Missouri	2,777	5,827	48
Montana	307	568	52
Nebraska	1,093	1,913	57
Nevada	88	140	63
New Hampshire	335	615	54
New Jersey	2,079	3,362	62
New Mexico	210	399	53
New York	9,507	16,857	56
North Carolina	973	2,226	44
North Dakota	367	517	71
Ohio	4,045	8,086	50
Oklahoma	981	2,600	38
Oregon	615	1,158	53
Pennsylvania	6,685	11,241	59
Rhode Island	427	754	57
South Carolina	730	1,368	53
South Dakota	368	630	58
Tennessee	1,014	3,228	31
Texas	2,312	6,094	38
Utah	323	497	65
Vermont	287	556	52
Virginia	1,134	2,503	45
Washington	1,010	1,756	57
West Virginia	887	1,751	50
Wisconsin	1,800	2,772	65
Wyoming	164	263	62

TABLE 3.—The number of Fellows and of subscribers, but not including advertisers, exchanges, libraries, etc., on THE JOURNAL mailing list each year beginning with 1900 is included in the table:

Year	Fellows	Subscribers
January 1, 1900	8,445	4,633
January 1, 1901	9,841	8,339
January 1, 1902	11,107	10,795
January 1, 1903	12,553	12,378
January 1, 1904	13,899	14,674
January 1, 1905	17,570	15,698
January 1, 1906	20,826	17,669
January 1, 1907	26,255	20,166
January 1, 1908	29,382	20,880
January 1, 1909	31,999	18,983
January 1, 1910	33,032	19,832
January 1, 1911	33,540	20,504
January 1, 1912	33,250	21,620
January 1, 1913	36,082	19,863
January 1, 1914	39,518	19,751
January 1, 1915	41,254	20,430
January 1, 1916	41,938	22,921
January 1, 1917	42,744	22,156
January 1, 1918	43,420	23,117
January 1, 1919	42,366	24,687
January 1, 1920	44,340	30,032
January 1, 1921	46,669	31,347
January 1, 1922	48,937	30,175
January 1, 1923	49,651	29,201
January 1, 1924	50,175	30,122

The total number of transfers from the subscription to the Fellowship list in 1923 was 2,626. In spite of this, there was a gain of 921 in the former.

TREASURER'S REPORT

Report of the Treasurer of the American Medical Association for the year ending December 31, 1923

ASSOCIATION RESERVE FUND

Reserve Fund as at December 31, 1922		$322,186.08
Transfer from General Office		60,000.00
Interest—Bonds	$13,011.67	
Interest—Uninvested Balance	565.53	$13,577.20
Reserve Fund as at December 31, 1923		$395,763.28

DAVIS MEMORIAL FUND

Bonds (at cost) as at December 31, 1922		$ 3,708.25
Bank Balance December 31, 1922	$ 494.87	
1923 Interest on Bonds	170.00	
1923 Interest on Bank Balance	$ 14.94	$679.81
Total Fund as at December 31, 1923		$ 4,388.06

AUDITOR'S REPORT

CHICAGO, January 9, 1924.

To the Board of Trustees,
American Medical Association, Chicago, Illinois.

Dear Sirs:

In accordance with your instructions, we have audited the accounts of the American Medical Association for the year ended December 31, 1923, and have prepared therefrom and append hereto the statements undermentioned:

Exhibit "A"—Balance Sheet as at December 31, 1923.
Exhibit "B"—Income Account for the year ended December 31, 1923.
Schedule "1"—Journal Operating Expenses—Year 1923.
Schedule "2"—Association and Miscellaneous Expenses—Year 1923.

The Balance Sheet submitted properly presents, in our opinion, the financial position of the Association as at December 31, 1923, and the Income Account, the results of the operations of the Association for the year then ended, subject to the explanation that no provision has been made for accrued interest, taxes, and "Journal" subscriptions paid in advance and that no valuation has been placed on subscriptions and memberships due and unpaid.

We verified the cash in bank by certificates received from the various depositories and that on hand by actual count. The receipt of the Continental and Commercial National Bank, covering $101,875.00 of U. S. Government Securities, held for safekeeping, was produced to us.

We also inspected the securities for the investment of the Association Reserve Fund and found them in order; these securities are stated at cost, without regard to the market value prevailing at December 31, 1923.

The Net Worth of the Association has increased since December 31, 1922, $153,736.58, representing the net income for the year 1923, $140,159.38, and the interest earned for the same period on the Association Reserve Fund, $13,577.20. This increase is spread over the assets and liabilities as follows:

Increase in Fixed Assets		$191,491.73
Increase in Reserve Fund Investment		73,577.20
		$265,068.93
Less:		
Decrease in Current Assets	$37,169.77	
Decrease in Prepaid Expenses	35,485.21	
Increase in Accounts Payable	10,274.37	
Increase in Advance Payments on Publications	28,403.00	$111,332.35
Increase in Net Worth		$153,736.58

During the course of the audit we made an exhaustive test of the various sources of income and verified the expenditures against properly approved vouchers on file. We have pleasure in reporting that the accounts are well and accurately maintained.

Yours truly,
MARWICK, MITCHELL & Co.

EXHIBIT "A"

BALANCE SHEET AS AT DECEMBER 31, 1923

ASSETS:			
Property and Equipment at Cost, less Depreciation:			
Real Estate and Buildings		$ 573,021.32	
Machinery		56,749.44	
Type and Metal		6,958.74	
Furniture and Equipment		28,151.34	
Chemical Laboratory		2,276.24	
Library		596.28	
Total Property and Equipment		$ 667,753.36	
Reserve Fund Investment:			
Government and Railroad Bonds—at Cost	$387,374.05		
Funds in Bank awaiting Investment	8,389.23		$395,763.28
Current Assets:			
Cash in Bank and on Hand	$ 88,232.13		
U. S. Government Securities—at Cost	101,875.00		
Notes Receivable	3,736.40		
Accounts Receivable:			
Advertising	$70,805.00		
Co-operative Medical Advertising Bureau	10,920.77		
Reprints	3,704.50		
Directory	15,840.65		
Miscellaneous	10,505.05	$111,775.97	
Inventories of Materials, Supplies and Work in Progress		$ 69,758.12	$375,377.62
Prepaid Expenses:			
Insurance Premiums		$ 1,367.81	
Session 1924 Expense		39.48	
Hygeia		15,523.64	$16,930.93
Total			$1,455,825.19
LIABILITIES:			
Accounts Payable:			
Co-operative Medical Advertising Bureau		$ 8,871.94	
Miscellaneous		38,709.23	
		$ 47,581.17	
Advance Payments on Publications		46,496.75	
Net Worth:			
Association Reserve Fund (Invested as above):			
Amount thereof as at December 31, 1922	$322,186.08		
Transferred, Sept., 1923, from Surplus Fund	60,000.00		
Interest received on Bonds owned and on Uninvested Cash—Year 1923	13,577.20		
	$395,763.28		
Surplus Fund:			
Amount thereof as at December 31, 1922	$885,824.61		
Transferred, September, 1923, to Association Reserve Fund	60,000.00		
	$825,824.61		
Net Income for the year ended December 31, 1923	140,159.38	$965,983.99	
Net Worth as at December 31, 1923			$1,361,747.27
Total			$1,455,825.19

EXHIBIT "B"

INCOME ACCOUNT

FOR THE YEAR ENDED DECEMBER 31, 1923

JOURNAL:		
Gross Earnings:		
Fellowship Dues and Subscriptions		$ 468,097.98
Advertising		617,825.04
Jobbing		10,070.35
Reprints		7,302.33
Books		7,444.52
Insignia		7,319.76
Miscellaneous Sales		13,698.32
Interest		12,820.89
Gross Earnings from Journal		$1,144,579.19
Operating Expenses—Schedule "1"		842,895.86
Net Earnings from Journal		$ 301,683.33
Miscellaneous Income:		
Rents	$ 1,500.00	
Sundry Publications	22,752.72	
Co-operative Medical Advertising Bureau	2,700.96	$26,953.68
Gross Income		$ 328,637.01
Association Expenses—Schedule "2"	$105,466.38	
Miscellaneous Expenses—Schedule "2"	83,011.25	$188,477.63
Net Operating Income		$ 140,159.38
Income from Investment of Reserve Fund		13,577.20
Total Income		$ 153,736.58

SCHEDULE "1"

JOURNAL OPERATING EXPENSES

FOR THE YEAR ENDED DECEMBER 31, 1923

Wages and Salaries	$375,180.18
Editorial, News and Reporting	11,767.02
Paper—Journal Stock	258,658.57
Paper—Miscellaneous	12,636.05
Electrotypes	20,096.92
Binding	720.50
Ink	7,065.30
Postage—First Class	22,154.03
Postage—Second Class	40,127.91
Journal Commissions	5,860.00
Collection Commissions	1,612.99
Discounts	16,089.26
Express and Cartage	3,830.06
Exchange	2,374.59
Office Supplies	1,894.69
Telephone and Telegraph	2,236.56
Office Jobbing	4,933.79
Power and Light	4,944.11

Fuel			7,854.36
Factory Supplies			9,343.15
Repairs and Renewals—Machinery			5,135.71
Bad Debts—Net			467.87
Miscellaneous Operating Expenses			17,127.33
			$832,110.95
Depreciation on Property and Equipment:			
Machinery	10%	$6,305.49	
Furniture and Equipment	10%	2,581.12	
Factory Equipment	10%	546.81	
Type	10%	310.56	
Metal	20%	1,040.93	$10,784.91
Total Journal Operating Expenses			$842,895.86

SCHEDULE "2"

ASSOCIATION AND MISCELLANEOUS EXPENSES

FOR THE YEAR ENDED DECEMBER 31, 1923

Association Expenses:	
Association	$ 34,656.36
Health and Public Instruction	7,491.38
Pharmacy and Chemistry and Chemical Laboratory	21,440.26
Medical Education and Hospitals	25,821.60
Organization and Field Secretary	2,523.20
Therapeutic Research	1,006.92
Legal Medicine and Legislation	12,214.63
Session 1923	59.11
Laboratory Depreciation—10%	252.92
Total Association Expenses	$105,466.38
Miscellaneous Expenses:	
Insurance and Taxes	$ 11,921.88
Legal and Investigation	2,550.00
Biographical Expense	11,536.83
Sundry Publications	54,634.82
Building Expense	2,367.72
Total Miscellaneous Expenses	$ 83,011.25

REPORT OF THE JUDICIAL COUNCIL

Dr. M. L. Harris, Illinois, Chairman, presented the report of the Judicial Council, which was referred to the Reference Committee on Report of Officers:

To the Members of the House of Delegates of the American Medical Association:

The Judicial Council has been called on to consider a greater mass of material during the year just passed than in any other preceding year. As heretofore, much of what has been brought to the attention of the Council has been that which should have been addressed to officers of county medical societies or of state associations, and has been referred by the Council to those officers. As was stated in its report last year, the Judicial Council has no disposition to refuse to accept fully any responsibility that may rightfully be imposed on it under the law of the Association; nor does the Council wish to usurp or to appear to interfere, even remotely, with the privileges and duties that are legally and rightfully imposed on the censors and councilors of component and constituent societies. These agencies are charged with specific duties, and it is altogether in keeping with the democratic spirit and purpose of our scheme of organization that they should consider first and adjust all questions of conduct, organization and discipline that primarily concern their individual members or their own units of organization. It is important that they should be called on to function actively whenever proper occasion arises, because thus will the privileges and rights of members and societies as such be more fully safeguarded, and thus will the aims and purposes of organization be more surely accomplished. The observance of established rules and orderly procedure can but lead to increased efficiency. The By-Laws of this Association and its constituent and component units are specific enough and, at the same time, broad enough to make adequate provision for the fair consideration and decision of all questions that need to be adjudicated. These laws make the board of censors of the county society the court of first resort, and provide for orderly appeal to the council of the state association as a superior court. The jurisdiction of the Judicial Council is very clearly defined in the By-Laws of this Association, and is so constituted as to preserve to the state and county societies the right to deal with those matters which are their peculiar concern. It is, however, the earnest desire of the Judicial Council to be helpful wherever and whenever it can, and to that end the Council renews its pledge to the members and societies of the Association to render any service within its power for the promotion of the cause of scientific medicine as that cause may be advanced through medical organization.

PETITION OF A COUNTY SOCIETY REGARDING CHARGES PREFERRED AGAINST AN ASSOCIATE FELLOW

A member of a constituent state association and Fellow of the American Medical Association preferred charges of unethical conduct against an Associate Fellow living in the same city, who was not a member of any county or state medical society, but a dentist. These charges were presented to the county society of which the physician making the charges was a member. Officers and members of that society addressed a petition to the state medical association concerned and to the American Medical Association asking that the Associate Fellow against whom the charges were made be removed from Fellowship. The Associate Fellow preferred counter charges against the complaining physician. There was also presented to the Council a statement favorable to the Associate Fellow, signed by as many members of the county society involved as had signed the petition above referred to. The petition of the county society, communications from officers of the state association concerned, communications from complainant and counter-complainant, affidavits, copies of court records and oral testimony from the Associate Fellow against whom charges had been preferred were all very carefully considered by the Council at two separate meetings. The complaining physician did not appear before the Council. After thorough consideration of all evidence presented, the Council was of the opinion that both the complaining Fellow and the Associate Fellow against whom charges were made were censurable, and so informed the individuals and the medical organizations concerned.

DIVISION OF FEES

Whispered reports and even open statements to the effect that the practice of fee splitting prevails in many places have been heard with increasing frequency during the last year or two. Since the last meeting of this House of Delegates, at least two signed communications regarding this subject have come to the Council which deserve special mention. Each of these makes the point that it is or may be possible that county societies having jurisdiction cannot take action to correct the evil of fee splitting because enough of the members of these societies indulge in the practice to prevent such action. One of the communications referred to came from a Western city, the other from a Northern state. It is contended that, because of the impossibility of securing corrective action by county societies, the American Medical Association should act to investigate existing conditions, expose whatever is found that is reprehensible, and create a situation whereby members of county societies who engage in the practice of dividing fees would be forced out of membership.

The Judicial Council does not know that the practice of fee splitting prevails generally to anything like the extent indicated by the letters and rumors that have come to the attention of the Council and which purport to describe the situation in the communities from which these came. Moreover, the Council earnestly hopes that the conditions described as existing in those communities have been exaggerated and overstated. As has been done in former reports, however, the Council wishes to record its condemnation of this pernicious practice wherever it may be found, and to urge component societies and constituent associations to purge their membership of any who wilfully refuse to desist from such practice, the continuance of which can only bring dishonor and reproach on the medical profession. So far as its power extends and its jurisdiction reaches, the Judicial Council will undertake to deal with any specific cases which may be presented to it and to render judgment in any cases in which necessary evidence for conviction is put before the Council. It is not felt, however, that the American Medical Association, through any of its established agencies, should go into territory within the primary jurisdiction of any of its units of organization for the purpose of discovering facts that could be obtained only on the evidence of members of component societies, which are specifically charged with

the duty of maintaining the honor of the profession and which have duly constituted machinery for bringing transgressors to account.

The Council suggests that, when a county society is found to enroll so many fee splitting, or otherwise unethical, members as to render it impossible for that society to enforce the ethical standards of the medical profession, in accordance with the laws of our medical organizations it then becomes the duty of the state councilor, whose district embraces such society, to bring the situation before his state board of councilors and have the charter of such recalcitrant society annulled and in its place to have reissued a new county society charter, in the name of well known ethical physicians of such county, in order that a society with ethical standards may be organized and maintained.

PERIODIC HEALTH EXAMINATIONS BY LAY ORGANIZATIONS

The Council is making a study of the operation and scope of lay organizations engaged in life extension work, so called, and will probably present a statement dealing with this subject to the House of Delegates at this or a succeeding session.

DEFINING "SECTARIAN"

In compliance with several requests received, the Judicial Council has formulated and adopted, for purposes that may be served, the following definition of the term "sectarian":

A "sectarian," as applied to medicine, is one who in his practice follows a dogma, tenet or principle based on the authority of its promulgator to the exclusion of demonstration and experience.

DEFINING "PHYSICIAN"

Requests have also been received for the definition of "physician," and the following is submitted for consideration and for use in such purposes as may be served by such a definition:

A physician is one who has acquired a contemporary education in the fundamental and special sciences, comprehended in the general term "medicine" used in its unrestricted sense, and who has received the degree of Doctor of Medicine from a medical school of recognized standing.

THE RELATIONSHIPS OF PHYSICIANS AND CULTISTS

Several communications addressed to the Council have raised various questions as to the relationships of physicians with cultists—the attitude that should be assumed by the physician called into a case under treatment by a cult practitioner, whether a pathologist in a hospital under the direction of regular physicians should refuse to examine material submitted by a cultist, and other questions of more or less similar nature. In the opinion of the Judicial Council, these are questions that are not sharply to be defined by words. In his relations with irregular practitioners, the physician should be bound by the Principles of Medical Ethics, Chapter II, Article I, Section 1, while bearing in mind the considerations set forth in Sections 6 and 7 of the same chapter and article, and with due consideration for the observations made in the Conclusion on Page 23 of the Principles of Medical Ethics of the American Medical Association. In such matters the policy must be governed largely by the circumstances governing the individual case; by the conditions existing in the special community; and by the realization that the first duties of the physician are the care of the sick and, at the same time, the upholding of the dignity and honor of the profession.

DISPENSING OF GLASSES BY PHYSICIANS

The Council has been asked for an official expression relative to the practice of physicians dispensing eye glasses who send prescriptions or prescriptions accompanied by frames for the glasses to manufacturers or wholesalers, and have the complete glasses returned to them for delivery to patients, who are charged retail prices. These physicians retain the amount of the difference between the wholesale and the retail cost of the completed glasses. In order that the Council may have proper guidance through professional advice, this matter has been referred to the Section on Ophthalmology, with a request that the section offer a recommendation on the subject.

MEMBERSHIP CONTINGENT ON PAYMENT OF LARGE ASSESSMENTS

A county medical society, with headquarters in a large city, is engaged in the very worthy enterprise of securing means for building a permanent home for the society. The necessary funds are to be obtained through assessment of $100 on each member, and, if the Council is correctly informed through letters from former members and would-be members of the society, membership is made conditional on the payment of the assessment. Complaining physicians claim that the assessment levied is unduly large, object or refuse to pay, and maintain that they are unjustly kept out of affiliation with their state medical association and the American Medical Association. Those complaining do not reside in the city in which the society home is to be built, but in smaller communities in the county. After receipt of several letters from physicians residing in the county concerned, the Judicial Council referred the matter to the state medical association having jurisdiction. The council of that state association has considered the mattter and advised the Judicial Council that it is one for local determination.

The Judicial Council, as has been stated in this and previous reports, has no disposition to interfere with state, district or county societies in the management of their affairs. There can be no objection to the making of any kind of assessment desired that will stand, provided it does not exclude worthy physicians from membership; but to make membership in district, state and national societies contingent on the payment of a large assessment to the county society is fundamentally wrong.

AMENDMENT OF BY-LAWS SUGGESTED

Provision is made in Section 2 of Chapter XI of the By-Laws of the American Medical Association for continuance in the relation of Fellows by commissioned officers of the Army, the Navy and the United States Public Health Service who have been retired "on account of age or physical disability." By Act of Congress, certain commissioned officers have been retired or may be retired after long and honorable terms in these services of the country. Only a few such officers have been so retired up to the present time, among them some of the most honored men who have been identified with the military, naval and public health arms of the government. It is recommended that the By-Laws be amended by inserting at the end of the sixth line of Section 3, Chapter XI, the words "or, after long and honorable service, under the provisions of an Act of Congress."

M. L. HARRIS, Chairman,
W. S. THAYER,
J. C. CHASE,
J. N. HALL,
F. W. CREGOR,
OLIN WEST, Secretary.

REPORT OF THE COUNCIL ON MEDICAL EDUCATION AND HOSPITALS

Dr. Arthur Dean Bevan, Illinois, Chairman, presented the report of the Council on Medical Education and Hospitals, which was referred to the Reference Committee on Reports of Officers:

To the Members of the House of Delegates of the American Medical Association:

The present report of the Council makes reference to (1) the present status of medical education; (2) present supply of physicians in the United States; (3) graduate medical education; (4) medical licensure, and (5) hospital work of the Council.

1. PRESENT STATUS OF MEDICAL EDUCATION

The number of medical schools in the United States now represents a normal supply, and is sufficient to meet easily the demand for physicians in the United States. As shown in Chart 1, the total number since 1904 has been reduced from 160 to eighty, the reduction being brought about mostly by the merging of two or more colleges in each of a score

of cities to one invariably stronger and better equipped institution.

Although the total number has been reduced, particular attention is called to the fact that the number of higher standard and better equipped institutions has been increased

TABLE 1.—*Enrolments of Medical Students for Eight Years, Showing Variation in Numbers by Classes*

College Session	Freshmen	Sophomores	Juniors	Seniors	Totals
1914-15	3,373	3,919	3,675	3,864	14,891
1915-16	3,582	3,094	3,559	3,727	14,022
1916-17	4,107	3,117	2,866	3,674	13,764
1917-18	4,283	3,521	2,803	2,923	13,630
1918-19	3,104	3,587	3,272	2,967	12,930
1919-20	4,234	2,837	3,464	3,263	13,798
1920-21	4,825	3,588	2,637	3,416	14,466
1921-22	5,412	4,219	3,355	2,649	15,635
1922-23	5,162	4,615	3,861	3,322	16,960
1923-24*	5,197	4,449	4,286	3,876	17,808

* Estimate.
The lowest ebb in the enrolments in the respective classes following the adoption of higher entrance requirements is shown by the figures underscored. The dotted lines are under figures showing a temporary diminution due to the World War.

from two, or 1.2 per cent. of all colleges, in 1904 to seventy-four, or 92.4 per cent. of the medical schools now existing. Furthermore, twenty years ago the majority of medical schools were independent institutions, many of which were stock corporations conducted for profit. Now sixty-three, or 80 per cent., are integral parts of universities and under the direct control of the university so far as instruction and maintenance are concerned. The reduction in the number of medical schools again has been more than offset by the greatly increased number or size of the buildings occupied by each institution, whereby each medical school can not only provide a more complete medical training but also care for larger numbers of students on the average.

STUDENT ENROLMENT

The number of students enrolled in medical schools was, indeed, gradually reduced from 28,142 in 1904 to 12,930 in 1919. Since 1919, however, as shown in Table 1, there has been a rapid rebound, the numbers of students enrolled having been increased by approximately 1,000 each year. During the present session (1923-1924) 17,808 students are enrolled—the largest number since 1912, and still the medical schools are not filled to their maximum capacity—reports to the contrary notwithstanding. In 1912, the 118 medical schools then existing enrolled only 156 students on the average, whereas the eighty medical schools now existing have enrolled, an average of 223 students each.

HIGHER GRADE STUDENTS

Although, as already shown, there was a temporary reduction in the numbers of medical students between 1904 and 1919, there has been a constant increase in the numbers or better qualified medical students since 1904. At that time, of the 28,142 medical students enrolled in medical schools only 640, 2.3 per cent., were in institutions requiring two or more years of college work for admission; now, of the 17,808 students enrolled in all colleges, 17,330, or 97.3 per cent., are enrolled in medical schools having the higher entrance standard.

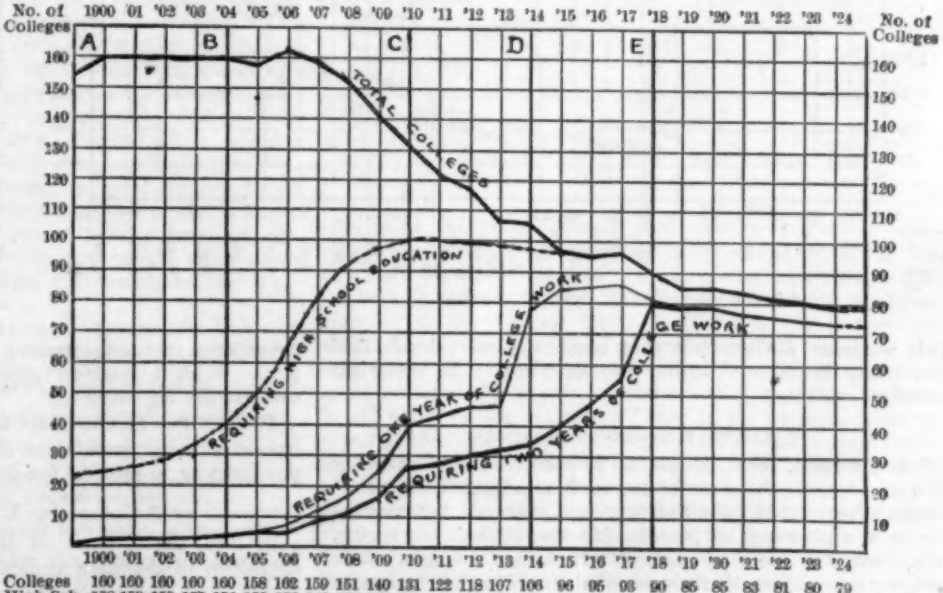
GRADUATES IN MEDICINE

As shown in Chart 2, the number of graduates in medical schools was temporarily reduced from 5,747 in 1904 to 2,670 in 1918. Since 1918, the total was again increased to 3,192 in 1921 and, except for the war class which graduated in 1922, the increase has been continued. Based on the present enrolments in medical schools, as shown in Chart 2, there will be a rapid increase during the next three years, and the number in 1927 will be approximately 4,750.

BETTER QUALIFIED GRADUATES

Although there was a temporary decrease in the total numbers of students graduating from medical schools, the numbers graduating from the higher grade medical schools has been steadily increased from 267, or only 5 per cent. of all graduates in 1906, to 2,964, or 95 per cent. of all graduates in 1923, and in all classes hereafter, as shown in Chart 2, the same high proportion will have been from these better qualified graduates. Here, again, medical schools are now capable of turning out physicians in larger numbers, as well as of those who are in every way better qualified. In 1904, the 160 medical schools were turning out an average of only thirty-six graduates each, while in 1927, the eighty medical schools will be turning out an average of approximately sixty graduates each.

CHART 1.—FEWER BUT BETTER MEDICAL SCHOOLS


No. of Colleges
1900 '01 '02 '03 '04 '05 '06 '07 '08 '09 '10 '11 '12 '13 '14 '15 '16 '17 '18 '19 '20 '21 '22 '23 '24
A
B
C
D
E
TOTAL COLLEGES
REQUIRING HIGH SCHOOL EDUCATION
REQUIRING ONE YEAR OF COLLEGE WORK
REQUIRING TWO YEARS OF COLLEGE WORK
160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10

	1900	'01	'02	'03	'04	'05	'06	'07	'08	'09	'10	'11	'12	'13	'14	'15	'16	'17	'18	'19	'20	'21	'22	'23	'24
Colleges	160	160	160	160	160	158	162	159	151	140	131	122	118	107	106	96	95	93	90	85	85	83	81	80	79
High Sch.	158	158	158	157	156	153	156	148	135	116	91	80	72	60	24	12	10	10	9	6	6	7	6	6	6
1 Yr. Coll.	..	..	..	..	..	..	1	2	5	8	13	14	16	16	44	44	38	30	1	..	..	..	..	..	..
2 Yrs. Coll.	2	2	2	3	4	5	5	9	11	16	27	28	30	31	34	40	47	56	80	79	79	76	75	74	73

Five epochs, or stages, in the campaign for improvement are indicated in the above chart. In 1900 (A) the Journal of the American Medical Association began collecting and publishing educational statistics. In 1904 (B) the American Medical Association created a permanent committee, the Council on Medical Education. In 1910 (C) the Carnegie Foundation for the Advancement of Teaching published its report on medical education. January first of that year, also, had been designated by the Council as the date when medical schools should put into effect the entrance requirement of one year of collegiate work. This was not made an essential for the Class A rating, however, until (D) Jan. 1, 1914. The entrance requirement of two years of college work was made an essential for the Council's Class A rating (E) Jan. 1, 1918.

CAPACITY OF MEDICAL SCHOOLS

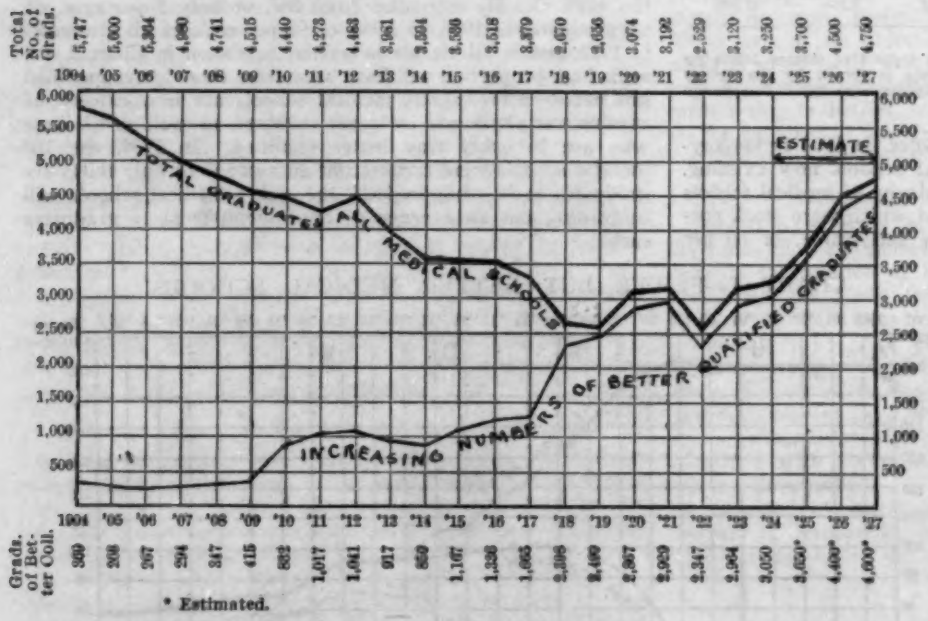
A special investigation recently completed shows that there is room in the seventy Class A medical schools for 17,955 students, although only 16,736 students are at present enrolled—ample space remaining for 1,219 students. It is quite evident, therefore, that the 592 students in Class B medical schools

and the 480 students in Class C institutions were not forced into those schools through a lack of space in Class A colleges.

These figures refute emphatically the rumors in regard to the inability of well qualified students to secure enrolment in acceptable medical schools. It has been variously stated that medical schools turned away "thousands of medical students," or "twice as many students as were enrolled," etc. It may be true that students have been turned away from some nearby medical schools, but places have always been available for them elsewhere. We have yet to hear of any well qualified student who has failed to secure admission to some Class A institution.

The cause of the confusion, as is well known to deans of medical schools, is that students now make application to a score or more of medical schools; some matriculate in, or even make deposits toward tuition fees, in several in order to be sure of a place in some school of their choice. They, therefore, become "enrolled" in as many different medical schools, but when the session begins can enter only one, and the other eighteen or nineteen places are left unoccupied.

CHART 2.—INCREASING SUPPLY OF WELL QUALIFIED GRADUATES



* Estimated.

This accounts for the fact that some medical schools find that when the session begins they have less than their full quota of students.

CAPACITY FURTHER INCREASING

A new medical school is soon to be opened at the University of Rochester, N. Y.; some of the medical schools which heretofore have offered only the first two years of the medical course are planning to provide for the clinical years also, and a score or more of medical schools are enlarging their laboratories, adding to their hospital facilities, or otherwise making provision whereby larger numbers of students may be enrolled. In this way it is clear that the total capacity of medical schools will be more than sufficient to care for all well qualified students.

2. PRESENT SUPPLY OF PHYSICIANS IN THE UNITED STATES

As already shown, ample provision is being made by medical schools to keep this country amply supplied with physicians. Although temporarily reduced, the annual number of medical graduates being turned out is rapidly on the increase, and at the same time thoroughly well qualified physicians are being provided.

At the present time statistics show that there is one physician in the United States to every 724 people. This is a much larger proportion than in the British Islands, where, according to the latest available statistics, there is one physician to every 1,087 people. Just prior to the World War, reports from the countries of middle Europe show only one physician for every 2,000 to 2,500 people. The supply of physicians in the United States, therefore, is fully ample.

SUPPLY IN RURAL DISTRICTS

There is undoubtedly an unequal distribution of physicians whereby the cities are better supplied than the rural communities. There has always been a scarcity of physicians in rural districts, although doubtless the shortage in *numbers* has become more pronounced in recent years. This does not mean, however, that the people in rural communities are not as well supplied with medical *service* as formerly, since the improvements of country roads, the interurban cars, the telephone and other means of rapid communication are enabling each physician to cover a much larger territory than heretofore. There are certain districts, however, which do not have physicians and where others are not easily available. Investigation shows, however, that, with very few exceptions, these are neighborhoods where it is practically impossible for a physician to make a livelihood.

HOW PHYSICIANS MAY BE SECURED IMMEDIATELY

No physician can be induced to locate in a neighborhood where he cannot obtain a fair living. In communities, therefore, where there are sufficient people to provide a physician, the following methods have been suggested:

1. One scheme that has been tried in a few instances is to have a group of citizens guarantee an income of $2,500 or $3,000 a year or more for a physician.

2. One state, New Hampshire, has passed a law enabling the people of the county or community to tax themselves in order to support a local physician. No definite results from this plan have as yet been reported.

3. In Iowa and some other states, laws have been passed to enable citizens of any county or community to tax themselves for the support of a small hospital. With a hospital, one or more competent physicians can usually be obtained.

The last two measures are feasible only when the community has a sufficient population to justify the employment of a physician or to provide for the maintenance of a hospital.

3. GRADUATE MEDICAL EDUCATION

In 1916, the Council on Medical Education made its first inspection of graduate medical schools. There were then only twenty such institutions, not one of which was providing a graded course of instruction; few were keeping records of attendance, or of work completed; laboratories, where at all found, were poorly equipped and, with a few exceptions, the schools were granting pretentious, diploma-like certificates for courses of one or more weeks in length.

Three years later, in 1919-1920, another complete inspection was made, when conditions were found to have been considerably improved. A few institutions had greatly strengthened their teaching plants and were providing larger opportunities for graduate instruction. The Universities of Minnesota and Pennsylvania had opened graduate medical schools as integral parts of those universities. Both were providing courses of three or more years in each of the various specialties, and, at the University of Pennsylvania, numerous short courses also were provided for the instruction of general practitioners.

During this inspection, special attention was called to the iniquitous practice of issuing diplomas for unduly short courses and, as a result, such practice was voluntarily discontinued by most of the institutions.

In 1920, fifteen special committees were appointed by the Council, one for each of the several laboratory and clinical specialties, each committee including nine physicians generally recognized as experts in that particular subject. In 1921, these committees reported the minimum duration and subject content of graduate courses by which, in their opinion, physicians could develop proficiency for the practice of the respective specialties, and reprints of these reports[1] were sent to the executive officers of all graduate medical schools.

In 1922-1923, a third inspection of all graduate medical schools was made, and further marked improvements in the institutions were noted. Most of the graduate medical schools had voluntarily ceased to grant certificates for courses of less than six weeks in length; more and better graded courses of instruction were being offered; closer attention was being paid to entrance qualifications, and better records of the students' actual work were kept. Some institutions, however, continued to grant pretentious diplomas for courses as short as a single week in length, and with little or no regard as to whether the recipient had become proficient.

Following this inspection, the "Principles Regarding Graduate Medical Education" were prepared which were included in the Council's report to the House of Delegates in 1923.[2] These principles provide for admission requirements; records; essential supervision; curriculum; graded instruction; qualified teachers; well equipped laboratories; library and museum facilities; essential hospital and outpatient material; annual announcements, and the granting of degrees or diploma-like certificates.

LIST OF APPROVED GRADUATE MEDICAL SCHOOLS

On the basis of these principles, a list of the graduate medical schools was prepared which the Council considered worthy of approval. Of thirty-five different institutions that were investigated, fifteen were at once admitted to the Council's approved list and nine have since been added, making twenty-four graduate medical schools that are now approved. These are known to be providing well organized and graded courses of instruction for physicians. Several other schools are making improvements that will soon qualify them for admission to the list. This represents a great improvement over conditions existing in 1916, when a physician who desired to obtain graduate work had to choose blindly from among the maze of unstandardized short courses, which, more than likely, would not provide him with the instruction he was seeking.

Approved Graduate Medical Schools

Columbia University College of Physicians and Surgeons, New York.—Higher degree and general practice courses.

Cornell University Medical College, New York.—Higher degree and general practice courses.

Harvard Medical School, Boston.—Basic review and general practice courses.

Herman Knapp Memorial Eye Hospital School of Ophthalmology, New York.

Johns Hopkins Medical School, Baltimore.—Special residencies in the Johns Hopkins Hospital, and general practice courses.

Manhattan Eye, Ear and Throat Hospital School of Graduate Medical Instruction, New York.—Special internships in eye, and in ear, nose and throat.

Massachusetts Charitable Eye and Ear Infirmary, Boston.—Special internships in eye, and in ear, nose and throat.

Neurological Institute, New York.—Clinical clerkships.

New York Eye and Ear Infirmary, Graduate School of Ophthalmology and Otology, New York.—Special internships in eye and in ear.

New York Post-Graduate Medical School, New York.—Special internships and general practice courses.

New York Skin and Cancer Hospital, New York.—Courses for general practitioners in dermatology.

Physiatric Institute, Morristown, N. J.—Diabetes and other metabolic diseases.

Stanford University School of Medicine, San Francisco.—Summer courses for practitioners.

State University of Iowa College of Medicine, Iowa City.—Summer courses in public health.

Trudeau School of Tuberculosis, Saranac Lake, N. Y.—General practice course.

Tulane University Graduate Medical School, New Orleans.—Higher degree and general practice courses.

University and Bellevue Hospital Medical College, New York.—Special course in surgery.

University of California Medical School, Berkeley, San Francisco.—Higher degree courses.

University of Chicago, Rush Medical College, Chicago.—Special courses in eye, in ear, and general practice and higher degree courses.

University of Illinois College of Medicine, Chicago.—Higher degree courses in preclinical branches.

University of Michigan Medical School, Ann Arbor, Mich.—Summer courses in public health.

University of Minnesota Graduate School of Medicine, Minneapolis-Rochester.—Higher degree fellowships and general practice courses.

University of Pennsylvania Graduate School of Medicine, Philadelphia.—Higher degree and general practice courses.

Washington University School of Medicine, St. Louis.—Courses in otolaryngology, pediatrics, infant feeding, obstetrics, and diseases of the heart.

HOSPITALS AS GRADUATE MEDICAL SCHOOLS

There are 285 hospitals in the United States offering advanced internships in the various specialties, many of which might easily be developed into acceptable graduate medical schools.

In these or other hospitals scattered throughout the country, there are doubtless physicians who, in education and special training, are eminently qualified to supervise the instruction of other physicians, and who also have access to sufficient clinical material to provide excellent graduate medical instruction. There is a great opportunity, therefore, to enlarge greatly the opportunities for graduate medical education by searching for these teachers and stimulating the development of graduate courses either as independent teaching hospitals or as courses affiliated with, or otherwise relating to, graduate schools of medicine. Several such courses in Pennsylvania, meanwhile, have been developed in correlation with the Graduate Medical School of the University of Pennsylvania.

Table 2.—*Capacity of Medical Schools Under Limited Enrolments*

Medical Colleges	No. Colleges	Total Enrolment 1st Year	2d Year	3d Year	4th Year	Total Capacity	Average per College
Class A colleges:							
4-year colleges....	49	3,731	3,424	3,270	3,094	13,519	279
2-year colleges....	10	423	391	.....	.....	814	81
Estimated capacity:							
4-year colleges....	10	1,032	807	851	898	3,588	359
2-year colleges....	1	21	13	.....	.....	34	34
Totals, Class A colleges.....	70	5,207	4,635	4,121	3,992	17,955	256
Class B colleges:							
Capacity reported..	4	196	186	190	190	762	190
Totals, A and B colleges.....	74	5,403	4,821	4,311	4,182	18,717	253

There is, indeed, a great abundance and variety of clinical material in the United States toward the development of which for graduate medical teaching scarcely a beginning has been made. With such material, properly developed, numerous opportunities for graduate medical teaching would be available in all parts of the country. There is no hospital, however remote, which cannot be developed into a satisfactory teaching institution if it is found that one or more physicians who are competent teachers can be prevailed on to utilize for teaching purposes the clinical material available in that hospital. Perhaps the most important work of the Council on Medical Education and Hospitals for the immediate future is to search out and publish a list of such hospitals as offer opportunities for work in accordance with the principles governing graduate medical education.

EXTENSION COURSES FOR PHYSICIANS IN ACTIVE PRACTICE

In close relationship with the development of graduate medical instruction in outlying hospitals throughout the United States comes the great importance of providing graduate extension work for physicians in active practice who, for various reasons, cannot leave home to secure such instruction in graduate medical schools in distant cities.

The Council has been considering this phase of graduate medical education for several years, and has collected information in regard to the measures adopted in several states for providing such instruction—measures that are very meager, as compared with the great importance and need of such instruction.

1. American Medical Association Bulletin, Jan. 15, 1921.
2. Report of the Council on Medical Education and Hospitals, J. A. M. A. **80**: 1934-1936 (June 30) 1923.

The plan for cooperating with country districts and state medical societies in providing graduate extension teaching, such as was suggested by the President and the Secretary of the American Medical Association in their reports last year and which were referred to the Council, has been given most careful consideration. At the request of the Council, Dr. West kindly outlined a scheme setting forth in more detail how such instruction might be provided by the American Medical Association, and referred to the essential, personnel, equipment and procedure.

At its annual business meeting, in the discussion of this subject, the Council noted that the principal work would have a very close relationship with the Association's organization work. It was believed also that, because of the nature and scope of the work, it could best be carried on by some bureau particularly established for that purpose. It was, therefore, voted:

(a) That a movement be inaugurated to place graduate medical instruction within the reach of general practitioners of medicine throughout the United States, and

(b) That the work be placed in charge of some body or bureau separate from the Council on Medical Education and Hospitals.

4. Medical Licensure

Statistics regarding medical licensure have been published in THE JOURNAL regularly each year since 1903. The collection and development of these statistics naturally became a part of the work of the Council on Medical Education when it began active work in 1905. These statistics have been of tremendous value as a sidelight on medical education and particularly in showing comparatively the successes and failures of graduates of the various medical schools at state board examinations. The statistics also have clearly shown that in some states the public is well protected against illiterate and unqualified physicians while in others in varying degrees the opposite situation prevails.

UNRECOGNIZED COLLEGES

Beginning in 1913 the Council included in these statistics each year in tabular form a list of the medical schools showing for each in what states its diplomas were not recognized. Publication of this table has had a very decided influence in enabling prospective medical students to avoid the unrecognized institutions. It has been an important influence also in inducing certain colleges to adopt higher entrance standards or to make other essential improvements in order to retain the approval of all state licensing boards. It is noteworthy that in this list the colleges from which most state boards have withdrawn recognition were those which were rated in Class C by the Council on Medical Education and Hospitals.

CHARACTER OF PHYSICIANS LICENSED IN EACH STATE

Beginning with the statistics of 1917 another table was inserted showing for each state the number of physicians licensed who graduated respectively from medical colleges rated in Classes A, B and C. This table has shown clearly for each state whether or not the public was receiving the best protection against incompetent physicians. With the statistics of 1922 another table was published containing the total number of physicians licensed in each state during the previous six years who graduated respectively from colleges rated in Classes A, B and C. In this table it could be seen for each state whether licensing conditions were being improved or not.

SITUATION IN ARKANSAS AND CONNECTICUT

These tables and the reports on which they were based have enabled the Council at once to recognize and to point out—as was done each year since 1917, editorially and otherwise—the questionable or unreasonable methods of licensure still found in a few states, particularly Arkansas and Connecticut. Attention has been regularly called to the fact that these two states were registering in large numbers those who were reported as graduates of two notoriously low grade medical schools, one each being located in St. Louis and Kansas City. It was noted also that during 1921 and 1922 the Board of Eclectic Medical Examiners of Connecticut, instead of limiting its activities to graduates of eclectic medical schools, received with open arms also large numbers of graduates of low grade regular colleges—those who should have applied for licensure to the Board of Regular Medical Examiners of Connecticut.

INVESTIGATION IN CONNECTICUT

Following the publishing of state board statistics in April, 1923, a vigorous investigation was started in Connecticut by the present efficient Commission of Health of that state, with the splendid cooperation of Governor Templeton and the Attorney General of Connecticut. Shortly after this investigation was begun the licenses of 56 physicians, who were declared to have been licensed illegally, were revoked. This happened several months prior to the exposure, by the St. Louis *Star*, in October, 1923, of the Missoui diploma-mill ring and its extensive activities in Connecticut. This exposure gave a new impetus to the Connecticut investigation and led subsequently to the revocation of the licenses altogether of 167 physicians, who were declared to have been illegally registered by the eclectic board in that state. The Council has been in position to aid materially in this investigation by furnishing an abundance of data from its files in regard to the medical schools involved—already placed by the Council in its lowest classification—and in regard to the individual physicians whose records were being investigated.

THE DIPLOMA-MILL EXPOSÉ

It is interesting to note that the institutions which were declared to have been involved in the sale of diplomas had long since been in the Council's lowest classification—Class C. They were of such low grade that their diplomas were not recognized by the licensing boards of over forty states. Even if those who purchased diplomas had actually matriculated in and attended these medical schools regularly for the required four years, and had been regularly graduated, they could not have obtained licenses in more than a few states. That is why the diploma-mill ring had to send their "graduates" half way across the continent to get them licensed. Slowly, but surely, barriers have been erected against seriously low-grade, medical teaching institutions, and soon, it is believed, Connecticut will be closed to them. The publication of state board statistics, coupled with the splendid cooperation the Council has received from the licensing boards has had much to do with this.

The attention of each member of the House of Delegates is called to this year's State Board Number of THE JOURNAL in which is set forth the present conditions of medical licensure in all states. Note also the leading editorial and the current comment referring to the Connecticut investigation. No one factor has had more influence on the improvement of both medical education and medical licensure in the United States than these state board statistics.

5. Hospital Work of the Council

The hospital work of the Council has developed into a clearing house of information as well as a powerful influence for ethical practice in connection with hospitals, and a definite educational program for the training of interns as well as in the better care of patients. The publication of data in the Hospital Numbers of THE JOURNAL; the listing of all reputable hospitals in the American Medical Directory; the supplying of information to Fellows and other inquirers; the censoring of advertisements regarding hospitals, and the furnishing of ready hospital data for other departments of the home office, makes necessary an up-to-date inventory of all hospitals in the United States.

Not only must the routine information about all hospitals be complete, but the ethical and professional standing of those who are permitted to practice in the hospitals is also ascertained. This vast amount of information, classified and indexed as it now is, also is frequently sought by individual physicians, hospital staffs, groups, medical colleges, county, city and state societies, as well as by departments of federal, state and city governments and other organized agencies in the hospital field. Practically all these agencies reciprocate by furnishing data, which, in turn, enrich the Council's fund of information. What is more significant, this increasing cooperation with outside agencies vastly increases the influence of the Council over the ethics and standards of the hospitals and the policies of the cooperating agencies.

HOSPITAL INTERNSHIPS

The work being done by the Council in relation to the intern service in hospitals is still being emphasized.

A complete report in regard to the demand and supply of interns and of certain remedial measures that have been proposed was published in the Hospital Number of THE JOURNAL, Jan. 12, 1924. Out of 6,830 hospitals on which the Council had reports, only 940 were interested in interns. In these hospitals 4,021 interns were serving, there still being an apparent shortage of 635, or 13.6 per cent., of the total demand.

Of these 940 hospitals, 660 were on the Council's list of those approved for intern training. These approved hospitals were securing 92.5 per cent. of the 3,690 interns wanted, while the nonapproved hospitals were getting only 63 per cent. of the 966 desired.

INQUIRY REGARDING INTERN PROBLEM

Early in the present year, a special inquiry was made also into the means of relieving the shortage of interns. These are reported as follows:

(*a*) *Extending internship to two or more years.* An increasing number of hospitals are offering inducements to their interns to remain in residence for a year or two longer, thus making the limited supply of interns reach farther, and 558 hospitals are now keeping their interns for an additional year, or are in position to do so.

(*b*) *Advanced internship in the specialties.* The requiring that interns in the specialties shall have already served a general internship is another means of meeting the scarcity of interns. There are 641 special internships, 376 in the special departments of 167 general hospitals, and 265 in the 118 special hospitals. It is from some of these advanced internships that courses of instruction in the specialties may be so developed as to make the hospitals worthy of approval as graduate medical schools.

(*c*) *Medical students as interns.* There were 450 hospitals that reported the use of medical students as substitutes for interns, and in 385 of these the medical students reside in the building. One hundred and sixty-three hospitals say that they get along with fewer interns by the use of medical students; 122 report to the contrary.

(*d*) *Use of resident physicians.* There are 1,544 hospitals that use resident physicians, and 3,912 such residentships in the United States are reported. In seventy-eight hospitals the salaries of residents are reported as less than $1,200 a year; in 196, from $1,200 to $1,800; and more than $1,800 in 250. Many hospitals are known to be using resident physicians instead of interns. In fact, 1,544 hospitals report resident physicians, as compared with about 900 that use interns. This gives some idea of the relative use of resident physicians instead of interns. Resident physicians seem to be readily procurable at salaries of from $1,000 and upward a year and maintenance.

(*e*) *Proposed use of nonmedical clinical assistants.* There were 814 hospitals of twenty-five or more beds that reported the use of 2,061 clinical and laboratory assistants or technicians. In reply to a question whether the hospitals would employ well trained nonmedical clinical assistants to write histories and do bedside work exclusive of physical examination and to perform the simpler clinical laboratory tests, 587 answered in the negative and 389 in the affirmative; 286 hospitals were of the opinion that nonmedical assistants could serve as substitutes for interns, while 591 answered that they could not.

(*f*) *More publicity regarding need of interns.* The shortage of interns is partly a matter of distribution. Twenty-three hospitals, each of which had at least one advertisement in THE JOURNAL recently, received 478 replies, or an average of more than twenty for each internship. The hospitals approved for interns averaged twenty-seven replies, and the nonapproved hospitals fifteen. Places for interns in hospitals would doubtless be promptly filled if the need were brought to the attention of those seeking such places through advertisements or some other effective clearing house arrangement.

(*g*) *Increasing numbers of graduates.* The present enrolments in medical colleges indicate that larger numbers of medical graduates, by about 500 each year, will be available for internships for the next four years. It is evident that the supply of interns will overtake the demand in a few years, unless there is considerable increase in the demand for interns.

AMERICAN CONFERENCE ON HOSPITAL SERVICE

In April, 1919, the American Medical Association initiated a movement for the coordination and cooperation of all national organizations engaged in the care of the sick and injured, which resulted in the organization of the American Conference on Hospital Service. Seventeen national organizations, including the American Medical Association, have conducted the activities of the Conference and have supported it in part by annual financial contributions. The Conference established a Hospital Library and Service Bureau with headquarters at 22 East Ontario street, Chicago. Among other things, the Conference has brought about a sympathetic interest and a better type of cooperation of all organizations of the country which are engaged in various fields of endeavor included in hospital service to the sick and injured.

HOSPITALS APPROVED FOR INTERNSHIPS

Hospitals that desire interns are more than ever recognizing the necessity of making the internship educationally worth while, thus winning a place on the Council's list. The consideration of hospitals for internships during the past year is summarized as follows:

Hospitals on the approved list May 1, 1923	654
Hospitals considered for approval May 1, 1923, to April 21, 1924	53
Hospitals in abeyance pending improvements	37
Number approved May 1, 1923, to April 21, 1924	16
Removed during same period	4
Net gain for the period	12
Number of hospitals on approved list April 21, 1924	666

The approved list has heretofore been published in three sections: I. General Hospitals, II. Nervous and Mental and III. Other Special Hospitals. Those in Sections II and III have been recommended for physicians who have had general experience or have served a general internship. In line with the modern requirements of medical colleges and state boards, for a general rotating internship, and also the increasing tendency to regard a general internship as the proper ground work for specialization, the Council plans after Sept. 30, 1924, to publish only the list of general hospitals approved for internships. Sections II and III will, therefore, be discontinued as such and, in lieu of them, the Council will publish a list of the hospitals that furnish acceptable special internships which are open only to physicians who have served a general internship.

ABSTRACT OF THE COUNCIL'S REPORT

MEDICAL EDUCATION

1. Although the total number of medical schools has been reduced from 160 to 80, the number of high grade, better equipped colleges has been increased from 2 to 74.

2. The total number of medical students was reduced from 28,142 in 1904 to 12,930 in 1919, but since 1919 the enrolments have been increased by nearly 1,000 students each year, the

total number of students at present enrolled being approximately 17,808—the largest number since 1912.

3. The number of graduates of medical schools, likewise, was reduced from 5,747 in 1904 to 2,670 in 1918, but since 1918 there has been a rapid increase interrupted only by the war class which graduated in 1922. An estimate indicates that in 1927 there will be 4,750 graduates, the largest number since 1908.

4. The higher entrance requirements and the other improvements made in medical education, therefore, are not causing a dearth in the numbers of either medical students or graduates. As a result of the changes, however, there has been a positive increase in the number of graduates who are better qualified, both educationally and professionally—from 267 or 5 per cent. of all graduates in 1906 to 2,964, or 95 per cent. of all graduates in 1923.

5. Although the number of medical schools now is only one-half of what it was in 1904, the capacity has been greatly increased. Instead of only 156 students and only 36 graduates for each college on the average in 1904, now each college on the average has 223 students and in 1927 will turn out about 60 graduates.

PHYSICIANS TO POPULATION

6. The United States now has one physician for every 724 people as compared with one to 1,087 people in the British Islands and one to about 2,000 people in the countries of Central Europe.

7. Although the number of physicians in rural districts is smaller, this does not mean in all instances a decreased medical service, since the better means of rapid transit enable one physician to take care of a larger area than heretofore. The scarcity of physicians in rural communities is more than offset by a great oversupply in the cities.

GRADUATE MEDICAL EDUCATION

8. Instead of twenty postgraduate medical schools which were existing in 1916, practically none of which was providing well established and properly graded courses of instruction, now there are thirty-five, twenty-four of which have been admitted to the Council's list of approved graduate medical schools and are offering greatly improved and graded courses of instruction. Nevertheless, the development of graduate medical instruction in the United States has scarcely begun and great improvements along this line are anticipated in the next few years.

9. There are 263 hospitals in the United States offering altogether 641 advanced internships in the specialties. Most of these advanced internships in the specialties, it is believed, can be developed into acceptable courses of instruction for physicians who wish to become proficient in some specialty.

EXTENSION GRADUATE TEACHING

10. There is great need that through cooperation with county, district and state medical societies, graduate medical instruction be placed within the reach of general practitioners of medicine in various parts of the country. This instruction should include courses in physical diagnosis, clinical laboratory instruction and diagnostic clinics. At the business meeting of the Council on Medical Education and Hospitals this special work was deemed of great importance and it was recommended that a special council or bureau separate from the Council on Medical Education and Hospitals be established to have the work in charge.

MEDICAL LICENSURE

11. Statistics regarding medical licensure published by the Council in THE JOURNAL each year since 1903, are exerting a tremendous influence toward the improvement of medical education and toward the better protection of the public against incompetent and unqualified physicians.

12. The serious conditions in medical licensure in Arkansas and Connecticut have been set forth in these state board statistics, and commented on editorially, every year since 1917.

13. The medical schools involved in the diploma mill exposé in Missouri, several months ago, have for many years been grouped in the Council's lowest classification—Class C. Furthermore, whether secured by actual attendance or by purchase, according to official reports, a diploma from any of these schools would not enable the holder to secure a license in forty-six states. The doors were closed against these graduates, therefore, in all but a few states, including Arkansas and Connecticut, and only graduates of eclectic colleges could get licenses in Arkansas. That is why graduates of one of the Missouri colleges had to go half across the continent—to Connecticut—to get licenses.

14. The investigation of irregular methods of medical licensure in Connecticut was begun a year ago, following the exposure of these irregular methods in the State Board Statistics. The investigation gives promise of closing the door in Connecticut also against the output of these low grade schools.

HOSPITAL INFORMATION

15. Since 1905 at the headquarters of the Council an abundance of information has been collected in regard to hospitals, dispensaries and allied institutions in the United States. Altogether there are practically 6,830 hospitals which are still active, only 940 of which appear to be interested in interns. Of the 940, after careful investigation, 660 have been placed on the Council's list of hospitals approved for intern training.

INTERN PROBLEM

16. Efforts are being made to solve the problem in regard to meeting the demand for interns. It is believed that the annual supply of medical graduates can be made to more nearly meet the needs by: (*a*) Extending the internship to two or more years; (*b*) requiring that for admission to internships in special hospitals the physician must have previously completed an internship in a general hospital, and (*c*) more publicity whereby the attention of students seeking internships may be drawn to the hospitals needing interns.

17. The problem of the shortage of interns is being partly solved through the rapidly increasing numbers of medical graduates. Other proposed measures are: (*d*) The larger use of resident physicians; (*e*) the larger use (by hospitals connected with medical schools) of medical students, and (*f*) the larger use (proposed but of limited service) of non-medical clinical assistants.

THE AMERICAN CONFERENCE ON HOSPITAL SERVICE

18. The American Conference on Hospital Service was established in 1919 by the Council on Medical Education and Hospitals. It now has in membership seventeen national organizations which are more or less engaged in the care of the sick and injured and which are cooperating in the support of the Conference by annual financial contributions. The Conference has established a Hospital Library and Service Bureau with headquarters at 22 East Ontario Street, Chicago. Through this Conference a splendid and sympathetic cooperation and interest have been brought about among the organizations in membership.

Respectfully submitted,

COUNCIL ON MEDICAL EDUCATION AND HOSPITALS.

ARTHUR D. BEVAN, Chairman, SAMUEL W. WELCH,
WILLIAM PEPPER, LOUIS B. WILSON,
MERRITTE W. IRELAND, N. P. COLWELL, Secretary.

REPORT OF THE COUNCIL ON SCIENTIFIC ASSEMBLY

Dr. J. S. Horsley, Virginia, Chairman, presented the report on the Council on Scientific Assembly, which was referred to the Reference Committee on Sections and Section Work:

To the Members of the House of Delegates of the American Medical Association:

The Council on Scientific Assembly held its regular annual meeting in Chicago, Dec. 21, 1923, with all members of the Council in attendance. All matters that could be properly brought to the attention of the Council were given careful consideration at this meeting. In the interim, before and after the regular meeting, the affairs of the Scientific Assembly have been conducted through correspondence between the chairman, the secretary and individual members, and prompt attention has been given to whatever has been presented.

Assignments for Section Meetings at Chicago Session

Assigments for the meeting hours of the sections at the Seventy-Fifth Anual Session were made in accordance with the arrangement whereby the sections alternate with respect to morning and afternoon meetings. The schedule of section meetings for 1924 is:

MORNING	AFTERNOON
Diseases of Children	Practice of Medicine
Surgery, General and Abdominal	Obstetrics, Gynecology and Abdominal Surgery
Ophthalmology	Laryngology, Otology and Rhinology
Miscellaneous Topics	Stomatology
Pharmacology and Therapeutics	Pathology and Physiology
Nervous and Mental Diseases	Orthopedic Surgery
Dermatology and Syphilology	Urology
Preventive and Industrial Medicine and Public Health	Gastro-Enterology and Proctology

Annual Conference with Section Secretaries

The regular annual conference of Section Secretaries with the Council was held in Chicago, Dec. 22, 1923. The secretaries of all sections except the Section on Practice of Medicine and the Section on Preventive and Industrial Medicine and Public Health were present. The Secretary of the Board of Trustees, the Treasurer of the Association, the Director of the Scientific Exhibit and the Assistant Editor of THE JOURNAL were also in attendance and participated in the deliberations of the conference, at which arrangements for the program and important matters in connection with the Chicago Session were considered.

Sessions on Anesthesia and on Radiology

At the annual meeting of the Council it was decided to give one session in the Section on Miscellaneous Topics at this annual session to anesthesia. James T. Gwathmey, M.D., New York, was elected to serve as chairman of this session, E. J. McKesson, M.D., Toledo, vice chairman, and Isabella Herb, M.D., Chicago, secretary.

Numerous communications were received by the Council, coming from all parts of the country, requesting that one or more sessions in the Section of Miscellaneous Topics be devoted this year to radiology. Others asked for a program devoted to radiology and physiotherapy. A large number of radiologists protested against this latter proposal, however, and the Council, because of the overwhelming number of such protests and because of the enthusiasm and earnestness of radiologists in seeking to have their own sessions in the Section on Miscellaneous Topics, or even to have a new section created, thought best to arrange for two sessions to be devoted to radiologic subjects. Officers were elected by the Council for the Session on Radiology as follows: W. F. Manges, M.D., Philadelphia, chairman; Albert Soiland, M.D., Los Angeles, vice chairman, and M. J. Hubeny, M.D., Chicago, secretary.

Physiotherapy

In its report to the House of Delegates last year, the Council called attention to the need for arousing the interest of the medical profession in the various forms of physiotherapy. Our views have in no wise changed since that report was made, but are even more pronounced. The interest of the profession needs to be aroused in order that physiotherapeutic measures of established merit may be brought into more general application, and in order, too, that ineffective and unworthy measures shall not be adopted to the discredit of medical science and the dishonor of the profession. The Council has requested officers of many of the established sections to solicit papers on physiotherapeutics for this meeting, and an examination of the official program will show that such papers will be presented.

Proposed Amendment to the By-Laws

The report of this Council last year submitted a recommendation to the effect that the By-Laws of the Association should be so amended as to provide for filling vacancies that may occur in the offices of chairman, vice chairman and secretary of any section during the period between annual sessions. The reference committee to whom this recommendation was referred acted favorably and so reported to the House of Delegates. Instructions were given by the House for the preparation and submission of the necessary amendment. This action, however, was taken too late for the Reference Committee on Constitution and By-Laws to prepare and submit the amendment. The Council therefore renews its recommendation and offers the following:

Amend Section 2, Chapter XIV of the By-Laws by inserting, after the seventh line in Section 2, the words: If any vacancy occurs in the office of chairman, vice chairman or secretary of a section, such vacancy shall be filled by the election by the executive committee of such section of a Fellow who shall serve in the office indicated until the next annual session.

Respectfully submitted.

J. SHELTON HORSLEY, Chairman.
F. P. GENGENBACH.
JOHN E. LANE.
E. S. JUDD.
ROGER S. MORRIS.
Ex Officio
WILLIAM ALLEN PUSEY, President-Elect.
GEORGE H. SIMMONS,
Editor and General Manager.
OLIN WEST, Secretary.

ADDENDUM

(Refer page 1938, preceding Reports of Officers)

The Vice Speaker, Dr. Rock Sleyster, took the chair, after which the Speaker delivered his address:

Address of the Speaker, Dr. F. C. Warnshuis

Members of the House of Delegates:

One year ago, President Wilbur, in addressing the members of this House of Delegates, stated:

"This House of Delegates should be, as it is, a great policy-making body." That declaration tersely sets forth the reason as to why we convene in annual session.

In our plan of organization and activity, there have been wisely provided a President, Secretary, Editor and General Manager, Board of Trustees, Councils and Executive Officers. They are our active officials, charged with the administration of our affairs.

Annually we receive from them complete accountings as to what has been accomplished, with their recommendations as to future policies, avenues of new endeavor and plans for the enlargement of our associated activities as their experiences and judgment indicate to be wise and expedient. To them, at the close of our annual deliberations, we impart anew our recommendations, orders and authorizations for the ensuing official year. Thus, by the exercising of combined wisdom and judgment, the Association's policies and principles are created and applied.

As Delegates, you have had at your disposal the Official Handbook containing the annual reports that are officially submitted to you by the Secretary, Board of Trustees and our Councils. They impart conclusions and recommendations for your consideration. They deal with the important problems that confront the profession. They point out wherein and how we best may enhance our organizational interests

and broaden our Association's influence and prestige. A careful study of their contents convinces your Speaker that they commendably include the vital questions of the day that press for solution. Your Speaker therefore deems it injudicious at this time to submit for your consideration additional comments or recommendations in view of the fact that the pending problems are concisely and concretely presented to you by your officers and executive representatives.

Your Speaker, however, feels that he may with every propriety, tender and request consideration of the following recommendation that pertains to the manner and method whereby we give consideration to the important subjects that are presented to this House of Delegates.

During the past year I have received several communications from Delegates and Fellows of the Association that conveyed expressions of criticisms and opinions concerning the business or working methods of this House. The following extract from a communication from a distinguished Fellow may be appraised as a pertinent and timely comment. I quote:

"In the American Medical Association a matter is introduced into the House of Delegates, as I understand it, and referred to a committee, but there is no announcement to the members of the Association who may be present that such a matter has been introduced into the House of Delegates, nor any general information given to the effect that it has been referred to a committee. The result is that the views of a very large number of practitioners may be ignored because neither the House of Delegates, which is, necessarily, a very limited body, nor the committee is governed by anything except the ideas of its members, and often-times most of the members of the House of Delegates rely upon the report of the committee."

It must be evident to any one who has had experience in this House that important subjects which frequently include fundamental and far-reaching principles and policies in regard to the activities of our Association and its constituent units and members are decided without general consideration. True, all such questions are first referred to our reference committees, and action is taken on the recommendations of these committees. Opportunity to appear before these committes is customarily afforded. Nevertheless, if opportunity were provided for a wider discussion of these resolutions and recommendations by and before all of the Delegates, our final action would without doubt be to the better interests of our Association and the profession as a whole and as individuals.

To that end then, your Speaker tenders the following recommendation:

That the House of Delegates establish the precedent of going into a Committee of the Whole for an hour or longer, if necessary, on the second day of our annual session and also on Wednesday or Thursday of the week of our session, as your deliberations may deem expedient.

In respectfully submitting this recommendation for your consideration, your Speaker does not for the moment desire to be understood as implying criticism on any action recorded at former sessions. Neither is the recommendation to be construed as the utterance of an opinion and appraisal that our enactments result from hasty and superficial deliberation. On the contrary, the recommendation emanates solely from a desire to provide more time and more deliberation in the formulation and promulgation of plans and policies that are of such vital concern to our future. It is your Speaker's desire to be so understood.

BUREAU HEADS

Our Association has several Councils and Bureaus that are concerned with the administrative work of our policies and plans. These Councils and Bureaus, in most instances, have full-time executive heads or secretaries. To better orient in the minds of Delegates, to evidence the personnel at our Headquarters, and to afford encouragement and inspiration to Bureau Heads and Council Secretaries, it is recommended that the privilege of the floor of the House be extended to these executive officers for a period of five or ten minutes to present brief abstracts of the work that is being accomplished while the annual report of each Council or Bureau is being presented.

DELEGATE'S RESPONSIBILITY

The members of this House individually represent the members of their state organization. This is not a small honor, a privilege lightly to be appreciated, nor are you intrusted with idle responsibilities. You deal with things present and from that vantage point you forecast and build for the future, erecting a structure of fundamentals, policies and principles that lead on down the years. Much has been said regarding the power and possibilities of cooperation. Little, far too little, has been said about the responsibilties that go with that power and how it may be abused or misdirected. That power of cooperation, however, must not be permitted to suppress individual initiative. You are being looked up to by those whom you represent and by the people of not only this nation but of the entire world to acquit yourselves of the trust that has been reposed in you. You are the formulators of guiding medical principles and practices that create for our federacy and the entire medical profession of the country a standard and a position that exercise a powerful influence on all civic, commercial and social activities and progress. You possess a tremendous power that is at all times a determining factor in the nation's march of progress. The hope is advanced that, recognizing these responsibilities, there will be recorded during this session legislative enactments that reflect complete justification of the confidence that has been placed in you.

OFFICIAL DUTIES

During the year, your Speaker has received several invitations to attend the annual or special meetings of state associations. It was with considerable regret that personal limitations compelled me to be able to attend only the meetings of the Missouri State and District of Columbia Associations.

Your Speaker attended the regular meetings of the Board of Trustees, and is pleased to repeat his comment of last year as to the earnestness and fidelity with which the Trustees perform their duty. Privilege and profit has been mine by reason of this association with your Trustees.

In the appointment of the reference committees that are to be announced, I have conscientiously and unbiasedly endeavored to give equal and fair representation to each group of state delegates. Until one attempts to make a selection of committeemen, he can scarcely realize the time consuming task that it is. The one purpose has been to distribute equitably the appointees among as many state delegates as their numerical apportionment of members indicated.

APPRECIATION

I am deeply sensitive to the honor you have conferred on me in permitting me to serve as your presiding officer. My appreciation can be measured only by the responsibility which such an honor entails. My purpose will ever be, during this session, to merit the confidence and trust imposed, for it is only in that manner that my thanks can be adequately expressed.

Address of President-Elect William Allen Pusey: The Trend in Medical and Nursing Services

The President-Elect, Dr. William Allen Pusey, delivered the following address, which was referred to the Reference Committee on Reports of Officers:

I wish to express again this morning, as I did at the time of my election, my appreciation of the high honor you conferred on me. It is an honor which any man may well regard with pride as the capstone of his medical career.

I hope I will be pardoned if I take this occasion seriously and discuss at some length, but as briefly as I can, two important problems of medicine as a social agency. These are: (1) the high cost of nursing training; (2) the high cost of medical training. Let me call your attention first, briefly, to the nursing problem and then take up the vastly more important one of physicians.

THE HIGH COST OF NURSING TRAINING

The trained nurse for ordinary service has become inaccessible, except to the rich and for institutional and community employment. In order to save time, please assume that I accept at the highest value the present good type of trained nurse. There is need for her, but there is much greater need for a very large number of trained nurses who will perform the simple duties of attendants for the sick. That is the great function of the trained nurse. The ideals of the nursing craft are all away from that point of view. The House of Delegates last year in effect approved the recommendation that the standard for entrance requirements for nurse training include "a four year high school education," and then approved the proposition that "the education and training of the nurse should not be so expensive. . . . as to place her services beyond the reach of the average family." How are these two propositions to be reconciled? How is the average family going to pay the salary that the high school graduate, who has had two and a half or three years' training in nursing, may justly ask? That puts her out of reach of most people except in cases of desperate emergency. That is not the kind of trained nurse that is most needed. There should be a trained nurse for the bedside who is available for service in ordinary illness for the ordinary family.

The proper work of the trained nurse does not contemplate that she is in a position of primary responsibility. Her duty is to care for patients' needs under the physician. If she is to do more—to assume the physician's function—she should take the medical course. The things she has to do are simple things. The work she has to do in ordinary service does not require a high school training nor three years of hospital training. It needs young women of character and intelligence, of a sense of responsibility and of elementary education. Given such a woman, and the time required to teach her in the hospital the technic of the nursing craft is a small part of three years. The effort should be made to provide, as well as a certain number of the present order of nurses, a nurse of that sort in large number.

There are, for example, in Illinois at least 136,000 births annually. The Department of Registration estimates that there are probably not more than 7,000 registered nurses in service, and many of these are taking care of children or more or less ill ladies in affluent families. In other words, there are not more than enough trained nurses in Illinois to take care of the obstetric cases, to say nothing of the scores of thousands annually of seriously ill. If no more nurses can be furnished and if less expensive nurses cannot be furnished, the purpose of their existence is largely defeated.

The nurses are by no means entirely responsible for the present situation. Much of the time in their training has been taken up in using them in the common menial duties of housemaids in the hospital.

THE HIGH COST OF MEDICAL TRAINING

One of the most serious problems of medicine is the increasing cost, both in time and in money, of the physician's training. We are producing now a class of doctors who, because of the extent of their training, can justly expect to obtain professional positions and recompense for their services which are very high in the economic and social scale. The results of the developing situation are shown by the many plans that are being devised to get expert medical service to the man of small means, even in the cities; in the difficulty of getting hospital interns and medical assistants; of getting medical men for positions which they have always held, such as executives and medical officers of hospitals and similar institutions, of medical boards and medical societies; in the increasing difficulty of the Army and Navy and Public Health Service in filling their corps. Whenever a nonmedical man can be used in a quasimedical position it is now being done, because the younger medical men who would naturally be chosen for these positions cannot be obtained. Even in the Council on Medical Education and Hospitals, the use is being suggested of nonmedical clinical assistants in hospitals—to do work that would give invaluable experience to young men who are later to practice medicine. In the cities, the situation is not so distinct because the cities are still overcrowded with the older generation of practitioners who have not yet passed out. But even in the cities the situation exists. As a committee of the Philadelphia County Medical Society, composed of David Riesman and William Pepper of the Medical Department of the University of Pennsylvania, and Thomas McCrae and John H. Gibbon of the Jefferson Medical College say, in a report (THE JOURNAL, Feb. 11, 1922, p. 455) on this subject:

> Even in the cities there are not enough men to serve as interns, as physicians in outpatient department, and in junior positions in hospitals.

The situation is the subject of lay editorials and magazine articles. It is recognized by the leaders of medical education in the constant discussions of modifications in the medical curriculum, so that general practitioners will be turned out. How to get young physicians to go into the family practice of medicine is the main topic of discussion of meetings on medical education.

The acute expression of the situation is found in the rural districts, but the rural problem is only part of the general problem arising from the expensiveness of preparation in medicine. I think it must be accepted that there is developing a definite scarcity of rural practitioners and that the situation will sooner or later constitute an emergency. It is now accepted by the Council on Medical Education and Hospitals, whose secretary says, in his statement in THE JOURNAL, March 15, 1924:

> It is true that such a scarcity exists, and that this scarcity is becoming more pronounced is evident.

I have taken occasion to ask, by letter, the secretaries of all the state medical societies, two questions: (1) Are young doctors going into the smaller towns? and (2) If so are they going in sufficient numbers to supply the future needs of the country district? I have received replies from nearly every state and, with few exceptions, the answers to both questions: "No" (32, No; 4, Yes; 1 Yes and No; four letters did not answer the questions; total 41).

The reply that is usually made when we are put on the defensive about this situation is that there is no shortage of physicians. That answer is beside the point. There may be an excess of any commodity, including physicians; but if it is beyond the reach of a part of the population it might as well, as far as that part of the population is concerned, not exist. Perhaps there is an excess of physicians in every town of 5,000 or more in the country, but that does not help the situation in great districts of the country where physicians are running down to 1 to 2,000 to 1 in 10,000, or more, of population, and where those few are inaccessible to many of the inhabitants.

The explanations which, in one form or another, are generally given for the situation put the blame on the rural communities. They point out that economic and social conditions of the country are unsatisfactory to the modern medical graduate; that he has become used to hospitals and laboratories and other things of that sort—not to mention social refinements. These are but ways of saying that our present graduates are above the rural districts and that we are not providing physicians for them as they now exist.

REMEDIES SUGGESTED

The remedies offered are in line with the explanations. Let the rural districts improve their economic and social conditions up to our standards. Let them provide hospitals and laboratories. Let them make improvements in transportation; build good roads and buy automobiles, even establish ambulance services, so that their people can go to the places where the physician is willing to live. These remedies are practically laying down the terms on which the country can get our services, and the more successful ones of us and the newer generation are laying down similar terms in the cities. They do, in fact, carry the bald inference that, if the situation is to be corrected, the 40,000,000 or 50,000,000 people in the rural districts will have to change their ways to meet the demands of the 30,000 or 40,000 physicians that they are going to need. I do not believe that, in the end, either

the city or the country is going to make any appreciable alteration in its economic and social condition in order to avail itself of our services. Specifically, I believe it is impractical to expect that the rural part of the community is going to reconstruct itself, within any future so near as to be of any interest to us, in such a way as to meet the demands of one tenth of one per cent. of its population, no matter how necessary that one tenth of one per cent. may be to it.

Let the situation become somewhat more acute and let the 40,000,000 or 50,000,000 people in the country who constitute most of the producers come to realize that this sort of thing is the best we have to offer to them for the care of their suffering, and they will take the matter into their own hands. We should not wait for that time to occur.

We cannot escape the responsibility by maintaining, as in substance we do in these contentions, that the fault is the country's. That is not following sound economic principle. The social and economic conditions of a country involve great essential facts beyond the power of any small group to alter. To be on sound economic ground—and if our policy is to prevail, it must be on sound economic ground—we must meet the situation of scores of millions of people as it exists. We must offer a direct—not an indirect—solution, or sooner or later admit that the situation is beyond us.

In the cities, no suggestions are offered to overcome the scarcity of physicians, because there is no scarcity; but futile efforts are being made by us to change the results of our present system of medical education in the way that will get men back to the family practice of medicine for the everyday patient.

Almost none of the remedies that we offer seem to contemplate the maintenance in the rural districts of the old status of physician and patient. We offer no direct solution of the situation. The remedies offered are socialized substitutes: the establishment of medical centers, of small hospitals and laboratories; the guaranteeing of part of the physician's income by voluntary subscription of individuals or by taxation of towns and districts; the establishment of scholarships on condition that the medical student after graduation will return to a given place to practice; even the building of hospitals and medical centers through outside governmental aid, in districts which cannot themselves afford to furnish institutions of this sort of sufficiently high grade.

These are all expedients—for the most part untried—to remedy a condition in which natural supply has failed to meet demand, and they are all steps in direction of medical socialism, or, if you please, "state medicine." As a matter of fact, some men see the logical end of the course we are pursuing and offer the opinion that "state medicine" is probably the only solution of medical services for the masses. That it is a step toward medical socialism particularly applies against the proposition which was adopted by the House of Delegates last year, recommending that districts in need should guarantee a certain income to the physician in order to get him to settle in its midst. Let the country acquire the habit of paying, as a community, a physician a salary for part of his service to that community, and it will be but one more step for it to hire him for all his service and have him as an employee for taking care of the community's sick. And then you will have the panels and the *Krankenkassen* of Europe.

Is this the only sort of remedy that we can offer? Are we reduced to the necessity of accepting as inevitable that the old order is passing; that we can no longer produce physicians to go out and do the old time, everyday work of practicing medicine; that we cannot change a course of ours whose direct trend is toward the day when service for the individual of ordinary means can be furnished only through some sort of industrial or socialized expedients; that in the rural communities there is no way of furnishing physicians of the new generation except by changing their economic and social conditions? Is there not some other way?

I raise the question: Is the medical profession so sure of the wisdom of the present standards of medical education toward which it is striving, and of the quality of that medical training, that it cannot consider any alteration in medical education which might remedy the situation by supplying the people with physicians, who would be willing to practice medicine as we have always done and as the older generation is now winding up its career in doing?

I have no inclination to criticize the work that has been done in the elevation of medical education in this country. I recognize the necessity there was for it and the courage and zeal and public spirit that was required to bring it about. I do, however, urge that, in pursuit of our ideals of scientific medical training, we have reached a point now where we must give consideration to these results.

In this situation, instead of unconsciously assuming that our present standards of medical education are sacrosanct and suggesting that everything else be changed instead of it, would it be contrary to public policy to have the universal degree in medicine one which would represent an adequate training for practitioners of medicine, but which would not be exacting beyond all other professions in time? I believe that such a course is feasible.

A PLAN OF ADEQUATE PRELIMINARY TRAINING

In order to put a concrete proposition before you, I propose that an adequate preliminary training for the practice of medicine could be given on the following terms:

1. The present accredited high school education.
2. Three years of medical training.
3. A hospital internship of not less than a year and a half.
4. Proper selection of students on the ground of fitness.

That would turn out a practitioner in from four to four and a half years after leaving high school.

In this proposition I am making no plea for the poor or the cheap medical school. The essential of a sound education of this sort, or of any sort, is a sound institution conducting it. I would make the requirements on medical schools as exacting as necessary to hold them to high standards of scholarship. I would have them, as far as possible, an integral part of strong educational institutions.

Nor am I offering this sort of medical education as a makeshift to meet a situation. I offer it as one that would be adequate, sound pedagogically—probably sounder than our present course—and in line with other technical educations. The essential things in it are: first, that the collegiate part of the course should be educationally sound; and, second, that it should include a clinical training through a hospital apprenticeship. I am willing to maintain that such a course as I have indicated, carried out under proper conditions, and including not less than a year and a half in a good hospital, would turn out better practitioners than we have ever turned out, except perhaps since we added, two or three years ago, one year of hospital apprenticeship to our present requirements; for the most essential thing in training for the practice of medicine is a clinical apprenticeship.

Now, I know that the practice of medicine is an art founded on science, but I also understand that an art founded on science requires practical training to attain skill in it. And the only way that sort of practical skill can be gotten in medicine is through an apprenticeship in practice. This is just as true in medicine as it is in music or painting or playing billiards. The weakness of our medical education has always been here. We have tried to make our practitioners by giving them an academic and laboratory training and the merest smattering of clinical training, but have not required the apprenticeship necessary to attain practical skill and experience. Foster has pointed this out in an able article on the results of medical education as shown in the Army (THE JOURNAL, May 24, 1919, p. 1540). He called attention to the fact that what our graduates lack, even from the better Class A medical schools, is not a knowledge of the things that should be done, but how to do them. Young men, who had clinical skill, had been in good hospitals; they might be deplorably deficient in it and come out of good medical schools. The great practitioners of medicine in this country, even in the last thirty years, have not come out of the great medical schools; they have come out of the hospitals.

Such a course as I have outlined would give the student the preliminary training, including the practical training, that would make him competent to face the demands that were placed on him in beginning practice; he would know what to do for the ordinary sick and injured, because he would already

have seen it done and helped to do it. It would furnish a foundation that would allow him to build as high as he is capable of. It is a better preliminary training than nearly all the great careers at this very day have been built on.

This sort of course I would require as the universal degree in medicine, an M.D. degree corresponding to the collegiate technical degrees. For the man who started out, or later decided, to become a specialist or consultant, or who wanted a university or research career, I would put the necessary number of years on top of this course and give him a degree that corresponds to the collegiate Ph.D. Our M.D. degree today represents fully as much time as the best grades of Ph.D.'s, but it represents nothing like the same standard of culture or of technical skill in special lines. Having the universal degree and its preliminary training in clinical medicine, the man seeking the higher places in medicine would then have the proper foundation on which to prepare himself actually for them. The higher degree would mean something. Tradition would soon give it value, and the highly ambitious men would seek it as they now do for memberships in the colleges of Great Britain. In the meantime, it would leave an opening in the primary degree for that great number of useful men who desire to take up the work of the everyday practice of medicine—the men who constitute the great and useful majority of the profession.

The social need of medicine is this sort of practitioner. The point I am trying to make is that we can produce such practitioners in four years after graduation from high school, and that we shall have to do something of this sort if we are to meet the proper demands of service to the whole people that society has a right to expect of us.

In such a plan I would make the requirements of the student so exacting that medicine would not be overrun by mediocrity. Our schools are now filled with students who are able to spend seven years in order to aspire to careers in medicine. I would not interfere, if I could, with a few schools whose aim is only to supply the Ph.D.'s of medicine; but I would make the requirements of those schools so exacting that their graduates in number and culture would correspond to the Ph.D.'s of the best universities.

The demand for the four year course would certainly be greater than at present. That would enable us to exact from students the highest standards of fitness. At present, among the requirements for the study of medicine the most difficult one to meet is the wherewithal for the student to live until he is 25 or 30 years old without supporting himself. Under the plan I propose, we could cut this difficulty almost in two, and we could make as exacting as necessary the requirements of fitness, which, after all, is the great one in medicine or any other vocation. Fitness, and not a competency in early life, could be the essential requirement for a medical career.

OBJECTIONS

Time will allow only brief reference to the objections that will be raised to this proposition: The high school graduate has not had a training to grasp the intricacies of modern medicine; three years of collegiate study would not be sufficient to train him in the essentials of medicine. I would be more impressed with the validity of these arguments were it not true that a very large number of the ablest members of our profession, even at the present time, have had as little or not more preliminary scientific training, and have shown themselves able to comprehend successfully the intricacies thus far. In a positive way, I am very strongly of the opinion that the intelligent high school graduate can undertake the study of medicine; can in three years be grounded in the principles of medicine; can, in addition, get a comprehensive grasp of the essentials of the practice of medicine; and can be trained to the point where he can continue his professional development. And that is all that we can reasonably expect in any preliminary training. As for the high school preliminary, to quote Mr. Abraham Flexner, ". . . a highly useful doctor can be trained on the high school basis if his efforts are made the basis for more instead of less efficent instruction" (Medical Education in the United States, p. 41). As a matter of fact, the essentials—and by the essentials I mean that part of a subject that is necessary to get a grasp of its principles and an orientation of its important facts—the essentials of biology, bacteriology, anatomy, physiology, chemistry, pathology, even of the practice of medicine and surgery, are not so extensive that they cannot be covered in a collegiate course of three years, including in the laboratory sciences sufficient illustrative laboratory experience to familiarize the student with the technical methods of these various subjects. More than that he should not have. It is all that you and I carry in our heads, except in subjects to which we give life-long, intensive study. The best that any man can hope to have is such an orientation of essentials. For details we must refer for information.

We must sooner or later face the fact that our preliminary training will have to be confined to essentials of this sort. We have been arguing for the increase of our medical course on the ground of the vast increase of medical knowledge. Medical knowledge is not static. It is entirely possible that it will increase as much in the next twenty-five years as it did in the last twenty-five years. When that time comes, are we going to add two or three or four years more to the preliminary training? In three or four generations, life would be too short to make any physicians at all.

Our students are now overloaded with detail which is beyond anybody's capacity to retain, which interferes with proper education, with proper appreciation of relative values, and with proper perspective in medical knowledge. This, I believe, is one great reason why nearly every student comes out feeling that he must be a specialist. He is so overwhelmed with the detail knowledge of medicine that he realizes that he cannot carry it all and must confine himself to one small field of it. As a matter of fact, nobody can carry all of it in one small field. And I think the estimate fair that, in the practice of medicine, 90 per cent. of our work is covered by a knowledge of essentials and of our usual procedures. In a small part of it we all have to get help by study or consultation, no matter how expert we may be in our particular lines.

Let me say in this connection that I do not underestimate the value of an academic training such as is represented by a college degree, but I value it rather for the background of culture that it gives a man in his general outlook on life than as a necessity for the study or practice of medicine.

The course that I have suggested is not so radical as we are likely to regard it. It is not out of proportion with the courses that prepare for other learned professions. It is ours that is out of proportion with all the rest. A high school training is accepted by the universities as sufficient preliminary training for the technical professions—for civil, mechanical, electrical and mining engineering, for example. I do not believe that it can be successfully maintained that the preliminary training necessary for beginning the study of medicine requires a more mature mind, or one more capable of grasping complex problems, or a more difficult preliminary education than do courses leading to these degrees which are founded on mathematics, physics and chemistry.

There is an attitude, when such a course as I have outlined is suggested, that this would turn out men of second rate education; that medicine cannot afford to reduce its educational standards to this low degree. I do not believe that is justified by the condition in the other learned professions. The colleges find that they can take young men from high school and give them in four years the accepted amount of general culture for intellectual careers. They do the same thing with the technical professions at the same time that they are giving them their professional training; and the engineers and architects and chemists do not suffer in the cultural comparison. Is there any reason to believe that the biologic sciences, and medicine itself, are not as good means of intellectual training as are other scientific studies?

Our disproportionately long course puts us at a disadvantage with these other professions in competition for young men. Medicine's material rewards are certainly no greater; its intellectual exercise and its careers are no more attractive; but the preparation for its practice requires three years' more time and several thousand dollars more money at the time when economic pressure is hardest. This relatively greater cost in time and money of medical education is a matter of decisive importance. If it does not seem so to you now, I

ask you to go back to the time when you contemplated the study of medicine, and consider whether $10,000 or $12,000 of expenditure and seven years of immediately unproductive preparation would not have been appalling to most of you then; if the saving of $3,000 or $4,000 and three years of your time might not have been a critical matter in the choice of your occupation? Who can doubt that this drives away from medicine to engineering and other professions many of the best quality of young men?

Ours is the only profession that requires as a minimum for everyone of its practitioners a period so long that its independent, responsible work cannot be undertaken until a time in life when other young men have gotten well started in their careers. Aside from these economic difficulties, this undue prolongation of pupilage is open to grave criticism. Many students of education have called attention to the dangers to character that result from keeping young men and women too long under the educational direction of others. After parental influence there is no part of the discipline of life that has more to do with the development of sturdiness of character and practical success than to the experience and discipline which are gained in the early years of manhood when life's responsibilities are assumed. It is desirable that this experience should come in the plastic period of young manhood. We are postponing it in medicine later than in any other vocation. This prolongation of tutelage and postponement of the responsibilities of life constitute a grave indictment against our policy of medical education. And this is increased by the makeshifts which are being proposed in order to help young men along in their medical education or in the early years of their practice, such as scholarships, bonuses and other crutches for men who would do better if they were so situated that they could walk alone. It is not conducive to a virile profession to have its members go well along into manhood before undertaking the independent responsibilities of life.

It is argued, of course, that there can be no compromise on a matter so vital as training for the care of human life, and that sounds like an unanswerable argument. It is true that the best doctor is none too good; it is equally true that the best doctor is not good enough. There is nothing easier than to give counsels of perfection, and there is nothing more likely to lead into situations of impractical futility than to follow them. On the same reasoning there would be no school teachers except Ph.D.'s, and then there would be school teachers only for the few. If we make physicians who are out of reach of a considerable part of the population, we are making no provision for physicians for that part of the population. It is not meeting the practical demands of life. The world must have physicians it can afford to employ. What service do we perform for a community by insisting that only a physician of our standard is good enough for it if we furnish it no physician at all or none that it can get?

One of the assumptions that we have accepted as a matter of course is that we should undertake to equal the standard of medical education in Europe. I am not unresponsive to the experience and judgment of other nations in medicine, but I do not accept it as axiomatic that we must adopt continental, specifically German, standards of medical education. Indeed, to me the strongest argument against our present plans of medical education is the medical service in Europe that has arisen under its system of medical education. The doctors in Europe present the same difficulties that we have here. They do not furnish independent medical service to the population in general. Except through organizations, they are the physicians of the upper classes. Mr. Abraham Flexner's report on medical education in Europe for the Carnegie Foundation for the Advancement of Teaching, in 1912, shows that in 1907 there were in Prussia more midwives in proportion to the population than there were physicians in proportion to the population for the whole German Empire (one midwife to every 1,816 inhabitants in Prussia, one physician to 1,912 inhabitants in the whole German Empire). That means that obstetrics for most of the people of Prussia and doubtless of Germany is in the hands of midwives. That tells the story of the sort of independent medical service—I mean independent as distinguished from institutional, industrial and state medical service—that the worker and peasant in Europe get. We hear much about the inadequacy of the medical practitioner produced under our old conditions of education, but at its worst it never gave the country service as low as that. Is that the sort of thing that we want to reach in this country? Do we want to work to an economic situation where the personal physician would be a luxury beyond wage earners and farmers? It will fortunately be a long time before the American wage earners are as patient and docile as their brothers in Europe have been, but even with them the present situation of medical service is in constant difficulties. There is "state medicine" and industrial medicine in the form of the panels and the *Krankenkassen,* and these are satisfactory neither to physicians nor to patients. There is turmoil now on both sides over them.

Of course, the answer is made that this cutting down of the course to four years would not overcome the difficulties; would not get men back to family practice nor to the country. The same arguments are used to support this position that were used ten or fifteen years ago to prove that the proposed increased requirements of medical education should not cause the difficulties that were predicted then and that have since occurred. Now, although these difficulties, which were predicted from the change, have occurred, it is stoutly maintained that they are not due to the obvious cause but to innumerable collateral circumstances. This contention is an argument of defense. It has the advantage that it cannot be entirely disproved except by experience, and we are making no plans to verify its correctness by experience.

Besides the pragmatic argument of our experience and of the difficulties that have developed, there are many arguments that might be adduced to indicate that this contention is not correct. The great fact, which has preponderant weight in this connection which no amount of argument will set aside, is the action of the general economic principle that, as you increase cost you restrict distribution. This principle acts inexorably whatever your commodity; and practicing physicians are a commodity that comes under its control just as surely as do automobiles.

THE OUTCOME

To sum it all up, the point which, as I see the situation I feel must be made, is that we are confronting, to use Cleveland's famous phrase, a condition and not a theory; that we are approaching a situation that far exceeds in importance mere academic consideration. I have suggested one plan which I believe is adequate and would go far to relieve the situation and is in accord with sound economics. I do not suggest it as the only plan or the best one. Let some one present a better and a more practical plan that meets the situation directly. I emphasize "directly," for if the solution is to be by economic and social changes it will not be left to us; that sort of thing is beyond any small group. Sooner or later the problem will demand solution. It is desirable that we should guide in this. If we do not, I believe there are three possibilities: Medicine for the masses will cease to be an independent vocation, and we shall have medical socialism; or the legislatures will take the matter into their own hands and we shall have a confusion in the standards for the practice of medicine; or a large minority of the community will be without physicians.

Reference Committees

The Speaker announced the following Reference Committees:

REPORT OF BOARD OF TRUSTEES AND SECRETARY

E. Elliot Harris, Chairman.....New York
L. L. Sheddan.....Tennessee
Southgate Leigh.....Virginia
W. A. Donaldson.....Pennsylvania
Irvin Abell.....Kentucky

REPORTS OF OFFICERS

Holman Taylor, Chairman.....Texas
H. A. Royster.....North Carolina
A. W. Hornbogen.....Michigan
D. E. McGillivray.....Washington
A. J. Bedell.....New York

LEGISLATION AND PUBLIC RELATIONS

J. A. Pettit, Chairman.....Oregon
Horace M. Brown.....Wisconsin
W. R. Steiner.....Connecticut
W. H. Seeman.....Louisiana
W. A. Cook.....Oklahoma

HYGIENE AND PUBLIC HEALTH

J. W. Kerr, Chairman..... U. S. P. H. Service
George Edward Follansbee.....Ohio
R. L. Greene.....Illinois
E. B. Heckel.....Pennsylvania
J. Becton.....Texas

CONSTITUTION AND BY-LAWS

William Gerry Morgan, Chairman.....District of Columbia
E. L. Hunt.....New York
E. P. North.....Missouri
W. D. Haines.....Ohio
G. F. Keiper.....Indiana

CREDENTIALS

J. D. Brook, Chairman.....Michigan
J. L. Rothrock.....Minnesota
Horace J. Brown.....Nevada
C. T. Pigot.....Montana
Rolland Hammond.....Rhode Island

SECTIONS AND SECTION WORK

Isaac Abt, Chairman.....Section Pediatrics
C. E. Mongan.....Massachusetts
L. H. McKinne.....Colorado
D. E. Sullivan.....New Hampshire
Albert Soiland.....California

RULES AND ORDER OF BUSINESS

H. P. Linaz, Chairman.....West Virginia
F. T. Kidder.....Vermont
Edgar A. Hines.....South Carolina
E. A. Pray.....North Dakota
W. P. Eagleton.....New Jersey

MEDICAL EDUCATION

F. B. Lund, Chairman.....Massachusetts
J. R. Eastman.....Indiana
Thomas G. Cullen.....Maryland
J. A. Witherspoon.....Tennessee
W. H. Mayer.....Pennsylvania

MISCELLANEOUS BUSINESS

H. P. Beirne, Chairman.....Illinois
Donald Macrae.....Iowa
A. D. Dunn.....Nebraska
W. R. Bathurst.....Arkansas
G. P. Johnston.....Wyoming

Communication from the Vice President

The Speaker read the following communication from the Vice President, Dr. W. E. Musgrave, which was referred to the Committee of Hygiene and Public Health:

I regret that the condition of my health will not permit my attendance at the Chicago Session. I take this occasion to urge the serious consideration of a resolution to the effect that we consider periodic medical examinations of all people from birth to death so important in health promotion that all state, county and other medical societies are urged to pass and give publicity to and carry out as part of the health program of organized medicine, the resolution requesting all members to make these examinations in their offices, free to all persons who ask for such favorable consideration. We consider this work to be the practice of medicine which should be undertaken only by adequately educated physicians, licensed to practice medicine, and that it should be done and recorded with the same thorough, sympathetic, confidential relation between physician and patient or family that has ever characterized the efforts of true physicians.

Reapportionment Committee

The Speaker announced the appointments on the Reapportionment Committee, besides the Secretary and the Speaker, of Dr. Charles Mears, New York; Dr. A. T. McCormack, Kentucky, and Dr. E. M. Neher, Utah.

Report of Secretary

The Secretary presented his report, which was referred to the Reference Committee on Report of the Board of Trustees and Secretary.

Report of Board of Trustees

Dr. Wendell Phillips, New York, presented the report of the Board of Trustees, which was referred to the Reference Committee on Report of Board of Trustees and Officers.

Report of Judicial Council

The report of the Judicial Council was referred to the Committee on Reports of Officers.

Report of Council on Medical Education and Hospitals

Dr. Arthur Dean Bevan, Illinois, chairman, presented the report of the Council on Medical Education and Hospitals, which, with remarks by the President-Elect, was referred to the Reference Committee on Medical Education.

Death of Mrs. Hubert Work

Dr. A. T. McCormack, Kentucky, moved that the Secretary wire to Dr. Hubert Work an expression of sympathy on the death of Mrs. Hubert Work.

Seconded and carried.

Report of Council on Scientific Assembly

Dr. J. Shelton Horsley, Virginia, chairman, presented the report of the Council on Scientific Assembly, which was referred to the Reference Committee on Sections and Section Work.

NEW BUSINESS

Resolution on Occasional Joint Meetings with the Canadian Medical Association

Dr. George F. Keiper, Indiana, presented the following resolution, which was referred to the Board of Trustees:

WHEREAS, It has been the privilege of many of us engaged in the so-called special lines of practice to frequently meet our confrères from Canada in the meetings of societies devoted to special lines of practice, and our associations have revealed the splendid achievements and personalities of these men to us; and

WHEREAS, A closer bond of amity and scientific achievement is always desirable between medical men wheresoever scattered; be it

Resolved, That it is the sense of this House of Delegates of the American Medical Association that occasional joint meetings of the American Medical Association and the Canadian Medical Association would be desirable and that the first joint meeting be held within the next five years; be it further

Resolved, That the matter of arranging for such meeting be entrusted to the Board of Trustees of the American Medical Association to report at the next annual session of this House.

Resolution on Interchange of Official Delegates with Canadian Medical Association

Dr. George F. Keiper, Indiana, presented the following resolution, which was referred to the Board of Trustees:

WHEREAS, The American Medical Association in session at San Francisco in 1923 was honored by the visit of an official delegate from the Canadian Medical Association, its secretary, John W. Scane, M.D.; be it

Resolved, That the American Medical Association enter into arrangements with the Canadian Medical Association whereby an interchange of official delegates to the annual sessions of each Association may be had, the arrangement for which to be consummated through our Secretary; be it further

Resolved, That the appointment of such official representative to the Annual Sessions of the Canadian Medical Association be left to the President of the American Medical Association with the recommendation that our first official delegate be our Secretary, Dr. Olin West.

Resolution on Proposed Amendment to By-Laws

Dr. George F. Keiper, Indiana, at the request of Dr. Gerry Morgan, Washington, D. C., presented the following resolution, which was referred to the Committee on Constitution and By-Laws:

Amend Section 2, Chapter 7, of the By-Laws, by striking out all words in this section after the word "vote" at the end of the eighth line.

Resolution on a Radiological Section of the American Medical Association

Dr. Cornelius Van Zwalenburg, California, presented the following resolution, which was referred to the Reference Committee on Sections and Section Work:

WHEREAS, The Radiological Society of North America, through the president, executive committee and counselors, unanimously resolved to favor the creation of a section of radiology in the American Medical Association, and,

WHEREAS, The Radiological Society of North America, consisting of 800 members, who are Fellows of the American Medical Association, and is represented in every state of the Union, Canada, Cuba, etc., and,

WHEREAS, The members of the American Roentgen-Ray Society and the American Radium Society also approve the substance of these resolutions, and,

WHEREAS, In executive session on Thursday evening, June 5, 1924, and on June 6, 1924, voted unanimously to adopt this resolution, and also that Dr. Albert Soiland, former president of the Radiological

Society of North America and a Delegate from California to the American Medical Association, be respectfully requested to present this resolution before the House of Delegates during the session in Chicago; be it therefore

Resolved, That the temporary section on Radiology in the American Medical Association be made permanent.

Report of Committee from Section on Laryngology, Otology and Rhinology on the Otolaryngic Hygiene of Swimming

Dr. H. M. Taylor, Florida, presented the following report, which was referred to the Reference Committee on Hygicne and Public Health:

At the last meeting of the Section on Laryngology, Otology and Rhinology, a committee of five was appointed to take up with the Board of Trustees the matter of compiling information relative to the otolaryngic hygiene of swimming and to disseminate the information to the profession and lay population. It is the opinion of this committee that one of the most important otologic problems today is the prevention of aural and sinus infections which result from injudicious swimming and diving, and which in the majority of instances follow bathing in public swimming pools where sanitary conditions are not in keeping with proper standards.

It is the hope of this committee appointed by the Section on Laryngology, Otology and Rhinology, that the Board of Trustees and House of Delegates make a favorable recommendation in order that this committee can give greater and more careful study to many phases of the problem, such as (1) nature and extent of infection over the country, (2) epidemiologic studies, (3) suggestions as to proper standards to overcome present difficulties, and (4) some plan as to the proper education of the profession and the bather as to the care of the nose and ears while swimming and diving.

H. MARSHALL TAYLOR, Chairman, Jacksonville, Fla.
RALPH A. FENTIN, Portland, Ore.
MILLIARD F. ARBUCKLE, St. Louis.
LEE HURD, New York.
HILL HASTINGS, Los Angeles.

Resolution on Cosmetics

Dr. Howard Fox, Section on Dermatology and Syphilology, presented the following resolution, which was referred to the Reference Committee on Legislation and Public Relations:

WHEREAS, There has lately been an enormous increase in the use of cosmetics; and,

WHEREAS, Many of these cosmetics contain chemicals irritating and even dangerous to the human organism; and,

WHEREAS, The dye paraphenylendiamin has so often resulted in serious and even in dangerous irritation when employed in furs and on human hair; be it

Resolved, That the Section on Dermatology and Syphilology, through its regularly appointed Executive Committee, urgently recommend to the favorable attention of the American Medical Association that they foster legislation placing cosmetic preparations under the Food and Drug Act, and especially requiring the placing of the names of all poisonous ingredients on the labels.

That they foster legislation prohibiting the use of the most harmful types of ingredients in cosmetics, and that they foster legislation to prohibit the use of paraphenylendiamin as a dye for hair and fur, and that this Council on Legislation of the American Medical Association urge laws with criminal liability to enforce the recognition of these demands.

Resolution on Dissociating Editorship and General Management of Association

Dr. Wells P. Eagleton, New Jersey, presented the following resolution, which was referred to the Committee on Miscellaneous Business:

Resolved, That the delegates of the Medical Society of the State of New Jersey be instructed to use their influence and votes (1) to dissociate the editorship and general management of this Association, on the retirement of Dr. Simmons, placing the editorship entirely separate from the general management of the Association so that the editor may devote his entire time to the scientific and ethical aspects of the profession. And that they use their influence and votes (2) to obtain an ad interim meeting of the House of Delegates at the headquarters of the Association annually, as it is impossible for the House of Delegates to do their full duty by the Association by having a meeting but once a year.

Resolution on Questions of Ethics and Propriety Concerning Institutional Publicity

Dr. George E. Follansbee, Ohio, presented the following, which was referred to the Committee on Legislation and Public Relations:

WHEREAS, Many problems and questions of ethics and propriety concerning institutional publicity, are constantly arising; and,

WHEREAS, There is no definite published guide available to the directors and officials of medical institutions; and,

WHEREAS, There is a widespread need for such guidance; therefore be it

Resolved, By the House of Delegates of the American Medical Association:

1. Publicity by clinics, hospitals, sanatoriums and other semipublic medical institutions as to quality of work done implies unusual and exceptional ability and efficiency on the part of their professional staffs and therefore is advertising of the medical men concerned. This type of advertising distinctly savors of quackery and is unethical.

2. Publicity by any such institution stating or implying that by reason of its exceptionally fine equipment and material resources, it is able to, or does, give the public better medical service than similar institutions are able or willing to render, is advertising for purposes of self-aggrandizement. Statements of this type are frequently exaggerated and misleading, are detrimental to the best interests of the public, of the institution concerned, and of true medical progress. Publicity of this kind is unethical.

3. Hospitals, sanatoriums and other similar public medical institutions must raise funds both for capital investment and running expenses from an interested public. Furnishing to the public facts concerning such an institution, its work, its aims and its ideals is legitimate and desirable. Such publicity deals in facts to which the public is entitled and in which it is interested, and is therefore ethical, provided it carefully refrains from any comparisons, either direct or implied; therefore be it further

Resolved, That the proper officers of the American Medical Association be instructed to seek the approval of the American Hospital Association of these ethical standards.

GEORGE EDWARD FOLLANSBEE,
By Director of the House of Delegates
Ohio State Medical Association.

Resolution on the National Prohibition Act

Dr. T. C. Chalmers, New York, introduced the following resolution, which was referred to the Committee on Legislation and Public Relations:

WHEREAS, Alcohol is a drug necessary in the treatment of certain diseases in the opinion of a majority of practicing physicians, as heretofore determined by the poll of the American Medical Association, and

WHEREAS, The use of alcohol in medicine by physicians is limited, regardless of the condition of the patient by the National Prohibition Acts, and

WHEREAS, The confidential relations maintained between the physician and his patient are violated by the said National Prohibition Acts, and

WHEREAS, The interests of the patient and the success of the physician require that such medicinal alcoholic liquor as is prescribed in the treatment of disease be of known purity and alcoholic content, and

WHEREAS, This can be accomplished only by the marketing of bottled in bond alcohol for medicinal purposes in containers suitable for dispensing, unopened, by the pharmacists in such sizes as will meet the patient's needs; be it

Resolved, That the House of Delegates of the American Medical Association expresses its disapproval of those portions of the National Prohibition Acts which interfere with the proper relation between the physician and his patient in prescribing alcohol medicinally.

Resolved, That the House of Delegates of the American Medical Association instruct the Board of Trustees to use its best endeavor to have repealed such sections of the National Prohibition Acts as are in conflict with the above resolution and also use their best endeavor to have the Commissioner of Internal Revenue and the Prohibition Commissioner issue revised instruction on the use and the prescribing of alcoholic liquors for medicinal purposes by physicians.

Resolution on Lack of Uniformity in Reporting Deaths in Puerperal State

Dr. C. E. Mongan, Massachusetts, introduced the following resolution, which was referred to the Committee on Hygiene and Public Health:

At the request of the Section on Obstetrics and Gynecology of the Massachusetts Medical Society, I wish to present the following resolution:

WHEREAS, There is a lack of uniformity among the several states of the United States in reporting deaths in the puerperal state; and,

WHEREAS, This lack of uniformity has placed the United States' death rates in the puerperal state in an unfavorable position; be it

Resolved, The House of Delegates of the American Medical Association in session June 9, 1924, memorialize the Director of the Census Bureau to the end that the Director of the Census Bureau request the several states of the United States to follow the method, under the International Classification of Diseases, adopted by the Registrar-General of England and Wales, in reporting mortality rates in the puerperal state.

Conflict of Annual Sessions with Final Exercises of Medical Colleges

Dr. Southgate Leigh, Virginia, presented a letter from the dean of the Medical Department of the University of Virginia requesting that the time of the annual sessions of the American Medical Association be arranged so as not to conflict with the final exercises of the medical colleges. This was referred to the Committee on Rules and Order of Business.

Report on Traumatic and Industrial Hernia

Dr. Southgate Leigh, Virginia, at the request of the Medical and Surgical Section of the American Railway Association, submitted a report to the House of Delegates for consideration and approval. The Medical and Surgical Section of the American Railway Association is doing effective work in bringing about a better understanding between the railroads of the country and the various medical, surgical and health organizations.

In pursuance of this policy, a special committee of the section, headed by Dr. W. B. Coley, after exhaustive study and investigation, prepared a report on traumatic and industrial hernia. This was referred to the Committee on Hygiene and Public Health.

Resolution on Education of Young Men and Women for Practice of Medicine

Dr. Southgate Leigh, Virginia, introduced the following resolution, which was referred to the Reference Committee on Medical Education:

In the education of young men and women for the practice of medicine, the time consumed in grammar school, high school, college and professional and hospital courses is so great that they are forced to begin their active work from two to four years later than in other callings.

The Council on Medical Education, as well as the outgoing President, has already given considerable time and attention to this matter.

However, it is one of such serious and pressing importance that it should be taken up vigorously and effectively by this organization.

It is suggested that through the initiative of the American Medical Association a commission be formed consisting of representatives from each of the departments of education mentioned, whose duties shall be to make a study of the situation, and outline a suitable plan for relief.

Resolution on Rules with Reference to Prescribing Liquor

Dr. Southgate Leigh, Virginia, presented the following, which was referred to the Committee on Legislation and Public Relations:

The rules in reference to the prescribing of liquor for the sick seem to have been changed to such an extent that the state directors have no authority in permitting more than one pint in ten days in extreme cases.

We recently wrote to the prohibition director of Virginia requesting a permit to prescribe more than a pint for a prominent citizen, aged 86, who had been forced to buy whisky of uncertain quality to augment the amount permitted. This was on account of his debilitated condition.

We appealed to the director on humanitarian grounds, but the request was refused with the statement that under the *present rules* no such exception could be allowed.

Feeling that this is a matter, not of prohibition, but of common sense and humanity, we would urge that the American Medical Association go on record as favoring a revision of such drastic rules.

Resolution on Repeal of Certain Sections of National Prohibition Act

Dr. Charles O'Donovan, Maryland, presented the following, which was referred to the Committee on Legislation and Public Relations:

The following resolutions were adopted at the annual meeting of the Medical and Chirurgical Faculty of the State of Maryland, Baltimore, April 22, and as secretary, I was directed to send a copy to you:

Because They contain clauses that add to the suffering of the sick, and also

Because They interfere with physicians in the legitimate practice of their profession; be it

Resolved, That Sections 7, 8 and 9, Title II, of the "National Prohibition Act" should be repealed; and, be it further

Resolved, That Section 2 of "An Act Supplemental to the National Prohibition Act" should be repealed for the same reasons; and, be it further

Resolved, That a copy of these resolutions be sent immediately by our Secretary to the Chairman of the Judiciary Committee of the House of Representatives in Congress, and also presented by our Delegates to the American Medical Association at its coming meeting in Chicago in June.

J. A. CHATARD, Secretary.

Adjournment

Dr. A. T. McCormack, Kentucky, moved that adjournment should be in honor of the memory of Louis McMurtry, for many years a member of the Board of Trustees, ex-President, and one of the Association's most honored members.

Seconded and Carried.

On motion, which was duly seconded and carried, the House of Delegates adjourned, to meet at 9:30 a. m., Tuesday.

Second Meeting—Tuesday Morning, June 10

The House of Delegates was called to order at 9:35 by Speaker Warnshuis. On motion of Dr. McCormack, Kentucky, the roll-call was dispensed with. The reading of the minutes of the previous day's meeting was dispensed with, on motion of Dr. McCormack of Kentucky.

The Committee on Credentials, through Dr. Brook of Michigan, its chairman, reported 129 delegates registered up to that time.

The Gorgas Memorial

Dr. Franklin H. Martin spoke to the House on the Gorgas Memorial. Dr. Martin's paper was referred to the Reference Committee on Medical Education.

Report of Reference Committee on Amendments to Constitution

Dr. Gerry Morgan, Washington, D. C., presented the report of the Reference Committee on Amendments to Constitution and By-Laws, including amendments to Section 2, Chapter 7 of the By-Laws, and to Section 2, Article VI, of the Constitution, which was declared adopted. The action taken on Section 2, Article VI, of the Constitution was reconsidered because of failure to be carried by three fourths of the registered members. Pending a recent count of the registration, the matter was made a special order of business for 11 o'clock, when, on a roll-call, it was adopted by a vote of 99 to 22.

Resolution on the Work of William Whitford

On motion of Dr. Lane, Connecticut, it was voted that a committee be appointed to prepare a resolution expressing appreciation for the work of Mr. William Whitford, former reporter for the House of Delegates, now deceased.

Report of the Reference Committee on Legislation and Public Relations

Dr. Pettit, Oregon, presented the report of the Reference Committee on Legislation and Public Relations, as follows:

The Reference Committee on Legislation and Public Relations recommends that the House of Delegates approve the following resolutions:

Recommendation No. 8 of the Report of the Committee on Narcotic Drugs of the Council on Health and Public Instruction, submitted by the Council to the House of Delegates at the Boston session, 1921, and printed on page 19 of the proceedings of that session, as follows:

8. Your committee desires to place on record its firm conviction that any method of treatment for narcotic drug addiction, whether private, institutional, official or governmental, which permits the addicted person to dose himself with the habit-forming narcotic drugs placed in his hands for self-administration, is an unsatisfactory treatment of addiction, begets deception, extends the abuse of habit-forming narcotic drugs, and causes an increase in crime. Therefore, your committee recommends that the American Medical Association urge both federal and state governments to exert their full powers and authority to put an end to all manner of such so-called ambulatory methods of treatment of narcotic drug addiction, whether practiced by the private physician or by the so-called "narcotic clinic" or dispensary.

In the opinion of your committee, the only proper and scientific method of treating narcotic drug addiction is under such conditions of control of both the addict and the drug that any administration of a habit-forming narcotic drug must be by, or under the direct personal authority of the physician, with no chance of any distribution of the drug of addiction to others, or opportunity for the same person to procure any of the drug from any source other than from the physician directly responsible for the addict's treatment.

The resolution introduced by Dr. George Edward Follansbee, Ohio.

The resolution introduced by Dr. Howard Fox, New York

The resolution introduced by Dr. T. C. Chalmers, New York, with the elimination of the first clause (see p. 1966).

The Committee on Legislation and Public Relations recommends that the following resolutions be not passed, because of the fact that the resolution introduced by Dr. Chalmers, New York, covers the points completely, which resolution we have recommended for passage:

The resolution introduced by Dr. Charles O'Donovan, Maryland.

The resolution introduced by Dr. Southgate Leigh, Virginia.

This report was adopted as presented.

Address of President Ray Lyman Wilbur

The Speaker introduced the President, Dr. Ray Lyman Wilbur, who delivered the following address, which was referred to the Committee on Reports of Officers.

Mr. Speaker, Delegates, and Trustees of the American Medical Association:

This past year has been a very pleasant one for me. As President of this Association and last year as President-Elect I have had a return of that friendly, kindly professional feeling that you all know. It is a great thing to be a member of an association like this, the member of a great profession. There is a friendliness about it that I think transcends that of any other profession. I can say quite frankly I have had a very pleasant and happy time, and I have enjoyed my associations with you men and other members of the profession. Wherever I have gone in the United States, I have found a lot of fine medical men interested in the Association and in the affairs of the profession and in the welfare of their communities. It has been a pleasure to see them because they have something that you do not find so often among other men, a certain unselfishness in their relationship to the public, and the public appreciates that. Sometimes they take a rather awkward way of showing us that, but they really do.

Now, I have been thinking a good deal during this year about the future of the medical profession, particularly in this country. Great forces are stirring in every part of society. I can illustrate the thing in my mind by giving you an illustration. The telephone company has had in the United States an almost unparalleled advance, and except in a few local instances there has been no particular problem from the legal standpoint and the political standpoint in regard to the telephone. It has extended its services everywhere. It has kept its rates on a level so that anybody could use the telephone, and it has provided a great public service. On the other hand, the railroads seem to be always in difficulties. They do something similar on a more extensive scale to that which is done by the telephone. It is largely a difference in the way the problem has been managed.

Mr. Theodore Vaile understood the public and was always ahead of the public in the things that the telephone could offer, always seeking new methods and putting them into effect. The railroad presidents, on the other hand, are usually about ten years behind the times on many things they tackle. They are always, consequently, in hot water, always up before bureaus for investigation and before Congress for study, and they are always fighting legislation; after they get it they stand for that and fight the next, and so on.

Now, the question for the medical profession is, Which method are we going to adopt? Are we going to be up with the game or are we going to be ten years behind? Because we must study these great social processes that are going on and the relationship that the profession bears to them. We can do it and I feel that we must.

We get lost every once in a while on things that come along. One of the greatest advantages in the United States of America is that we have forty-eight states. Any state can try an experiment, and if it is a bad one it alone suffers. If it is a good one, the others can profit by it. So we have a chance with an organized profession in forty-eight states to try out various devices. For the most part, the things that are being tried out are tried out on us instead of by us, because others are forcing our hands. We have not kept the game in our control.

The development of preventive medicine and of public health since the inauguration of the public health of today based on bacteriology has been of such a character that many have thought that the whole control of health should go over to the state. Now, it seems to me there is a dividing line which can be made and that we ought to have a definite series of studies along that line. The state is interested in the protection of individuals from contagious diseases. It has a right and it is willing to spend sums of money for that purpose. It seems to me that the state is not responsible for people who have resources of their own for their medical or surgical care. There are necessarily certain services that must be rendered to the indigent, to the insane and to the prisoner. It seems to me, too, that we must keep individualism in medicine if it is to advance, and we must keep individual relations between patients and physicians if medicine as an art is to go forward. The minute we allow a bureaucracy to step in between the physician and the patient, it seems to me we have taken the one step that will degrade our profession and that will put us so that we cannot render ideal professional services to patients.

Now I think that we ought gradually to get a definition in the minds of the public of what the taxpayers should pay for in health matters, and that we should at the same time have a clear understanding of what our responsibility is, and then meet that responsibility as we can do only by proper organization. We have tried by a method of somewhat overstandardization to handle medical education and some other medical affairs. You cannot standardize the price or the cost of taking out tonsils, because it is not simply a mechanical operation. One time you do it on a Chinese patient that cannot answer back or talk, and who does nothing but open his mouth and expectorate afterward. The other time you do it on a child with a mother and father and uncle and aunt and so on whom you have to spend a great deal of time on. In other words, since time is really the only thing a physician has to sell, he is the man that has to decide the individual responsibility he is taking in individual cases and the time consumed. When we get too much standardization, even in the charges that are being demanded, it seems to me that again we are interfering with the individual.

We can, though, develop a high sense of professional responsibility and a desire to play fair with the public and the other men in the profession, and I think that if you will analyze it carefully, you will admit that much of our success has been due to the fact that this has been the basis of medical association and medical organization.

I think as I look over my experience of the past year in the different groups to whom I have talked that the time is ripe for a considerable change in medical practice. I think we are going to accomplish something in medical education and prepare men somewhat better for medical practice than we have, because we are doing more to emphasize the clinical. I think we are beginning to train our students more to really take care of the sick than simply to diagnose the sick as they have been inclined to do in the past. But it seems to me that with the change in the type of illness, with the development of office practice, with the great social changes that are going on now so that people are flocking to the cities and leaving the country, and with the development of the hospital, we have a whole series of problems to work out among ourselves. Now, to me the rural practitioner problem is not one that we can solve. It is a great social question, this transfer of people from the farms to the cities; it comes with more machinery, with better roads, with gasoline and all that sort of thing, with the changed attitudes of people, with the desire to get more education for the children, and so on. If you will study the population curves, you will see that people are going into the cities from the country, and right now we are having an overproduction on the part of the farms; that to me can be solved only by a million or more farmers moving into the city and going into industry, because we have overproduction on the farms.

With these things in mind, it is evident that the profession cannot solve this problem by sending out a few more rural physicians. What they can do and should do is to provide competent, thoroughly trained men who will consider medicine a life of study, so that they can keep up with the great mass of information that is being gathered and is gathered every day, for in the long run our problem is simply this: Medicine in the last thirty years has gathered together a fund of information which, if it could be directly applied to the benefit of every individual, would prolong life and happiness, and change the whole current of human thought and life. The fund of information is available. We stand between that information and the public. It is our problem to provide for its distribution. If we make those provisions wisely, if we meet the situation, then we shall retain the mastery; if we

fail, general education has reached such a level that others will begin to demand that there be a distribution of this information available to the human race, and we shall lose our position of mastery. I have confidence that we shall maintain it.

Report of Reference Committee on Miscellaneous Business

Dr. H. P. Beirne, Illinois, presented the report of the Reference Committee on Miscellaneous Business, as follows:

Resolution introduced by Dr. Eagleton of New Jersey:

Resolved, That the delegates of the Medical Society of the State of New Jersey be instructed to use their influence and votes to (1) dissociate the Editorship and General Management of this Association, on the retirement of Dr. Simmons, placing the editorship entirely separate from the general management of the Association so that the editor may devote his entire time to the scientific and ethical aspects of the profession. And that they use their influence and votes to (2) obtain an ad interim meeting of the House of Delegates at the headquarters of the Association annually, as it is impossible for the House of Delegates to do their full duty by the Association by having a meeting but once a year.

The committee concurs in the resolution so far as it separates the office of Editor and General Manager on the retirement of Dr. Simmons, subject to the approval of the Board of Trustees. On the matter of obtaining an ad interim meeting of the House of Delegates, your committee feels that this question is covered on page 8, Constitution and By-Laws, Section 2, which says:

SPECIAL SESSIONS.—Special sessions of the House of Delegates shall be called by the Speaker, on written request of twenty-five or more delegates representing one third or more of the constituent associations; or on request of a majority of the Board of Trustees.

Since the ad interim meeting question is covered as stated above, your committee does not concur in this part of the resolution.

This was adopted.

Report of Reference Committee on Sections and Section Work

Dr. Isaac A. Abt, Illinois, chairman of the Reference Committee on Sections and Section Work, presented the committee report as follows:

The committee met and considered the one question referred to it, which is in reference to the formation of a new section on radiology.

It was moved and carried that this committee feels in sympathy with the substance of this resolution and recommends that it be referred to the Council on Scientific Assembly for action.

This was adopted.

Report of Reference Committee on Reports of Officers

Dr. Holman Taylor, Texas, presented the report of the Reference Committee on Reports of Officers, as follows:

I. ADDRESS OF THE SPEAKER OF THE HOUSE OF DELEGATES

1. We recommend that the following be adopted: "That the House of Delegates establish the precedent of going into a 'Committee of the Whole' for an hour or longer, if necessary, on the second day of our annual session and also on Wednesday or Thursday of the week of our session, as your deliberations may deem expedient."

2. We approve the following: "It is recommended that the privilege of the floor of the House be extended to these executive officers for a period of five or ten minutes to present brief abstracts of the work that is being accomplished while the annual report of each Council or Bureau is being presented."

II. ADDRESS OF THE PRESIDENT-ELECT

1. The committee recognizes the difficulties of the nursing problem as presented by the President-Elect, and is in hearty sympathy with his purpose in bringing the matter before the House of Delegates. In view, however, of the questions involved and of the impossibility of examining the subject adequately in the time at the committee's disposal, we respectfully advise that this section be referred to the Council on Medical Education and Hospitals.

2. We endorse in principle the discussion by the President-Elect of the perplexing affairs of medical education. Realizing, as we do, that a proper consideration of the suggestions will require an exhaustive study, your committee begs leave to ask that this be referred also to the Council on Medical Education and Hospitals, with the suggestion that the Council investigate the matter in the light of the excellent address of the President-Elect.

III. REPORT OF THE JUDICIAL COUNCIL

1. We approve the attitude of the Council as set forth in the first section relating to such matters of organized medicine as may come before it.

2. We approve the conclusions recommended in regard to fee splitting, and desire to quote the following paragraph containing the conclusions of the Council on this important matter: "The Council suggests that, when a county society is found to enroll so many fee splitting, or otherwise unethical, members as to render it impossible for that society to enforce the ethical standards of the medical profession, in accordance with the laws of our medical organizations it then becomes the duty of the state councilor, whose district embraces such society, to bring the situation before his state board of councilors and have the charter of such recalcitrant society annulled and in its place to have reissued a new county society charter, in the name of well known ethical physicians of such county, in order that a society with ethical standards may be organized and maintained."

3. The committee believes that under no circumstances should a regular physician engage in consultation with a cultist of any description.

4. In respect to membership contingent on the payment of large assessments, it is conceived that a well meaning member may be excluded unjustly by inordinate demands. A member so excluded should and does have the right of appeal to the state council for relief, and then in turn to the Judicial Council of the American Medical Association.

5. We agree in the recommendation of the Council concerning the amendment to the By-Laws calling for the insertion at the end of the sixth line of Section 3, Chapter XI, the words "or, after long and honorable service, under the provisions of an Act of Congress."

The committee would advise the insertion of the words "or claims to follow" after the word "follows" in the paragraph defining "Sectarian."

We concur in the definition of "Physician," and recommend its adoption.

All of the report was adopted, with the exception of the portion recommending that under no circumstances should a regular physician engage in consultation with a cultists of any description, which was rejected.

Report of the Reference Committee on Medical Education and Hospitals

The report of the Reference Committee on Medical Education and Hospitals was presented by Dr. F. B. Lund, Massachusetts, as follows:

Your committee notes with satisfaction the fact that, though the total number of medical schools in the country has been reduced from 160 to eighty, the number of higher standard and better equipped schools has risen from two to seventy-four, sixty-three of which are integral parts of universities—a truly remarkable showing. The student enrolment, which had been reduced during the drastic but necessary period of house cleaning, had fallen from about 28,000 in 1909 to 12,930 in 1919, and has been rapidly increasing, until, in 1923-1924, 17,808 students are enrolled, 93.3 per cent. of whom are in institutions which have the higher entrance standard. This is very satisfactory.

A glance at the chart opposite page 80 will show that the present increase in the number of better qualified graduates is going on so rapidly that before long there will be no question of a shortage of medical graduates. At the present time there is one physician in the United States to 724 inhabitants, against one to 1,087 in the British Isles. The improvement in the qualifications of the graduates has had most gratifying results. In one of our Southern states in 1915, out of thirty-six applicants for registration, only eleven could be accepted. Last year, as a direct result of the raising of

the school standards, 100 per cent. of the graduates passed the examination and secured their licenses. One result of the raising of the standards has been that, on account of the length of the course, graduates in medicine are often unable to begin practice before the age of 28, which puts them at a disadvantage in comparison with young men entering other lines of work.

Another result that has been attributed to the raising of the standards is the unequal distribution of the physicians between the city and the country, considerable areas of the rural districts in many parts of the country being at present inadequately provided with medical service. This condition is said to be due to the fact that the medical student, having incurred a high expense for his training, is unable to make enough money in the country to go there and live and, therefore, flocks to the city.

The chief reason that men move to larger places, however, is that they do not want to subject themselves and their families to the hardships of life in districts without adequate sanitation, conveniences, schools for their children, churches, human intercourse, and the other amenities of civilized existence. As stated in this report, this condition is being constantly and greatly alleviated by improvement in means of transportation, good roads, automobiles, etc., which have enabled the physician to attend to a practice extending over a much larger area than formerly. Shall we attempt to cure this condition, which is not in the first place due to the raising of the standards of medical education, by the dangerous, the humiliating, the suicidal method of lowering the standards, which we have so painfully raised by years of hard struggle and intelligent, conscientious work? Your committee believes that the answer of the Association to this question will be No! The benefits that are constantly accruing to the public from the services of properly trained physicians are too great to be sacrificed. We have made it possible for our young practitioners to become learned and efficient men who know, so far as it is humanly possible, what they are doing. Shall we open the door to mediocrity, ignorance and carelessness, and abandon our hard won heritage? Your committee hopes not. The advanced age at which students go to work is a real difficulty, but the lowering of the standards of medical education is not the way to meet it. By a speeding up in the work of our grammar and high schools, it is perfectly possible for a boy to be ready for his college years at 17 instead of 19, and get ready to practice at 26, instead of 28. The high school authorities are already thoroughly alive to this, as is shown by the fact that the average age of graduation in medicine in 1922 was 27.8 years. On the other hand, there has been a noticed tendency on the part of one or two of the universities to raise the requirement from two to four years. To any further raising of the standard your committee is opposed, because if the requirements are made too stringent and the length of medical education is made too great, it will be difficult for the graduate and will be even more difficult to get graduates to go to rural districts.

The Council on Medical Education and Hospitals is conferring with the authorities of our universities and high schools to bring about the speeding up of secondary education. The authorities of the University of Chicago and elsewhere are in sympathetic cooperation, and your committee would urge the Council to spare no effort in bringing about this, which it believes to be the real solution of the problem.

In this connection, it should be remembered that there are certain reasons that will always operate to make medical education take no longer than the business and engineering professions. A man ought to be more mature before he takes the responsibility for the physical, let alone the mental and moral, welfare of the human machine. It is certainly more complicated and delicate than an engine or a bridge, and touches life at more points, so to speak. Again, we believe that rural communities would not be satisfied with partially trained men, and as soon as it was learned that there were better physicians in the larger communities, the farmer would get into his Ford and go to consult them. So that even this short cut to the supply of the rural districts, made at so great a sacrifice of right, honor, principle and public safety, would be inefficient after all, and the real humiliation of seeing our great Association recant all it has said about high standards and devotion to the real welfare of the public would have been suffered in vain. The real problems of how to get the benefit of trained men for the rural districts has not been solved. The committee appreciates, however, the continued efforts of the Council to solve this problem, and hopes that the Association will give it every encouragement to continue their labors along the present lines. Whatever this remedy may be, we do not believe it lies in the lowering of the standards of medical education. The committee, also, approves of the welfare which the Council is making on the cults, which are still a serious menace and which can be efficiently met only by the present methods of educating the public to their real nature and danger.

Respectfully submitted,

THOMAS S. CULLEN.
J. A. WITHERSPOON.
JOSEPH RILUS EASTMAN.
WILLIAM H. MAYER.
FRED B. LUND, Chairman.

This was adopted.

Report of the Committee of the Whole

The House went into Committee of the Whole to discuss the supplemental report of the Judicial Council. The following resolutions were adopted:

Resolved, That the Committee of the Whole recommends to the House of Delegates that the practice outlined in the supplementary report of the Judicial Council be condemned as against the best interests of the public; and be it further

Resolved, That the Judicial Council be instructed to carry on an educational campaign in conjunction with the state societies and to cooperate with other councils and bureaus of the American Medical Association in the promotion of periodic health examinations by family physicians.

Report of Reference Committee on Hygiene and Public Health

The report of the Reference Committee on Hygiene and Public Health was presented by the chairman, Dr. J. W. Kerr, as follows:

Your Reference Committee on Hygiene and Public Health respectfully submits the following report:

The telegram of Dr. W. E. Musgrave addressed to the Speaker of the House of Delegates urges the adoption of a resolution by the House commending medical examinations in the promotion of health. With this end in view, your committee has prepared the following resolution, and recommends its adoption:

WHEREAS, Periodic medical examinations of all the people from birth to death are of great importance in the promotion of health; therefore be it

Resolved, That state and county medical societies be urged to endorse as a part of the health program of organized medicine the making of these examinations:

That the members of the respective societies be requested to make such examinations in the homes or in their offices, free to any persons who, by reason of economic conditions, require such favorable consideration, and

That in the performance of the work the same sympathetic confidential relation be maintained betwen physician and patient or family as has ever characterized the efforts of true physicians.

Your committee commends the objects and activities embodied in the report of the committee from the Section on Laryngology, Otology and Rhinology relating to the hygiene of swimming, and recommends that the approval of the House of Delegates be granted for the continuation of the work and that the facilities of the Association be made available for the purpose of giving publicity to the matter.

Your committee has considered the resolution presented by Dr. Charles E. Mongan on behalf of the Section on Obstetrics, Gynecology and Abdominal Surgery of the Massachusetts Medical Society, which has for its object the securing of greater uniformity and clarity in the recording and analyzing of statistics of deaths incident to childbirth. Your committee respectfully recommends that this resolution be referred to the Board of Trustees with the request that the board inquire into the methods of recording and analyzing statistics of death incident

to childbirth, and to take such action as may be necessary to make them represent truly the mortality from this cause.

This was adopted.

Report of Reference Committee on Reports of Board of Trustees and Secretary

Dr. E. Elliot Harris, New York, submitted the report of the Reference Committee on the Reports of the Board of Trustees and the Secretary, as follows:

REPORT OF BOARD OF TRUSTEES

The House of Delegates may best appreciate the immensity of the task of our Board of Trustees by careful consideration of the auditor's report of the finances of the organization. The successful administration of the business of this Association, with an annual financial turnover of more than a million dollars, is worthy of the gratitude of the entire Association. The character of the work of the Board is exemplified throughout its report. It indicates in but a small way the degree of personal sacrifice and effort so willingly given by the individual members of the Board of Trustees.

SPECIAL JOURNALS

We recommend the continuance of the publication of all the special journals issued by the Association, and note with pleasure that, while certain journals are published at a loss, this year's report indicates a slight profit of $3,474. We recommend on the part of the members of the Association individual effort to extend the circulation of these journals.

SPANISH EDITION

As the Spanish Edition of THE JOURNAL represents American medicine in foreign countries, we consider it well worthy of continuance, in spite of the fact that it is published at an annual financial loss.

QUARTERLY CUMULATIVE INDEX

The continued publication of the INDEX is recommended and its inestimable value to medical science is noted.

HYGEIA

For years, the members of the American Medical Association have sought a means of conveying to the lay public news concerning the best efforts of our organization in behalf of preventive medicine. The members of our Association have for years wished for a publication that might be circulated among laymen, contrasting in its columns in a dignified manner the efforts of organized medicine to improve public health, as compared with the practices adopted by cults and quacks. Such a publication was inaugurated by the Association in 1922, and, despite the splendid results attained by its editorial board and the great energy expended in attempting to extend its circulation, we note with regret that but approximately fourteen thousand physicians have to date availed themselves, by subscription, of the opportunity to place this magazine in the hands of lay readers. We advise the House of Delegates to authorize a definite appeal through its Secretary to the constituent and component societies in behalf of the extension of the subscription lists of this most useful publication.

SCIENTIFIC RESEARCH

We approve the money grants of the Board authorized under the Committee on Scientific Research, and recommend continued liberality in support of the great work of the approved research organizations.

PROPAGANDA DEPARTMENT

The Propaganda Department is commended for its activities during the past year, and the individual members of the Association are advised to aid the efforts of this department by circulating its reprints and supporting, by subscription, the continued publication of "Nostrums and Quackery."

COOPERATIVE MEDICAL ADVERTISING BUREAU

In 1921, a similar reference committee of the House of Delegates, commenting on the report of the Board of Trustees regarding the activities of the Cooperative Medical Advertising Bureau, reported as follows:

> The usefulness of the Cooperative Medical Advertising Bureau evidently becomes greater from year to year, and it is commended as the best means of keeping the advertisements in the state journals on a common high plane. This bureau now represents all the state journals except one, and it seems unfortunate that a single exception should exist.

This year we note in the Report of the Board of Trustees the following regarding this bureau:

> In 1923, the *New Orleans Medical and Surgical Journal* became affiliated with the bureau. There are now in the bureau thirty state journals —all but that of Illinois, representing thirty-seven state associations.

We sincerely hope that the journal of the great medical society of the state of Illinois may soon be alined with all the other state journals in support of the Cooperative Medical Advertising Bureau of the American Medical Association.

PERIODIC EXAMINATION OF THE APPARENTLY HEALTHY

Employers of labor, life insurance companies, laymen and laywomen are constantly turning to commercialized organizations for systematized physical examinations. Practitioners of medicine have frequently been indifferent to the public demand for periodic examinations. The American Medical Association has given much in time and effort to stimulate wider interest in this project among its members. The ultimate outcome rests largely with individual physicians. The family physician should continue as the most important factor in the prevention of sickness. The committee recommends that the efforts of the Board of Trustees and of the constituent associations and component societies in the promotion of periodic health examinations be continued.

THE BUREAU OF HEALTH AND PUBLIC INSTRUCTION

Component societies should constantly call on this bureau for material assistance in their efforts to educate the public in the methods of preventing disease and injury. We urge the House of Delegates to advise all such societies to create committees or commissions that will properly relate these medical societies to laymen and lay organizations seeking information regarding public health and hygiene.

SCIENTIFIC EXHIBIT

We heartily approve of increased expenditure, if necessary, in behalf of the annual scientific exhibit, and urge the cooperactive effort of the Scientific Assembly in the continued growth of this most important feature of the annual session of the Association. We especially commend the enlarged means provided for education and training in diagnosis afforded to visiting members. We recommend that the Board of Trustees favorably consider offering to the constituent associations every facility for improving the educational features of the scientific exhibit in connection with the annual sessions of the various state associations, having in mind especially the development of the moving picture theater plan for such meetings.

FIELD SECRETARY

We advise the adoption of the recommendation of the Board of Trustees abolishing the unfilled office of Field Secretary, and the creation by the Board of Trustees in the office of the Secretary of the Association of an organization designed to administer many of the functions originally approved by the House of Delegates for field work. We believe that the members of this House should welcome this opportunity to approve a plan which will in time enable Secretary West to bring personally to every constituent association the assistance he is so splendidly qualified by education, experience and character to give.

EXTENSION GRADUATE MEDICAL EDUCATION

Your committee shares the opinion of the Board of Trustees that it is the main purpose of this Association to promote the professional advancement of all its members at or near their home locations. We trust that the House will encourage the Board in the expenditure of any reasonable amount of money necessary thus to develop the original purpose of the Association in this most important field work.

THE BUREAU OF LEGAL MEDICINE AND LEGISLATION

We note with gratifying interest evidences of the development of the bureau as administered by Secretary Woodward.

NARCOTICS

We regret the failure of efforts to bring about a reduction of the war tax imposed under the Harrison Narcotic Law to a peace-time basis, which, as it stands, is in effect an occupational tax exacting from the medical profession a large part of the expenses required to police the nation against the activities of an element of the underworld. We urge continued efforts on the part of the bureau in its commendable efforts to obtain justice for the medical profession regarding this tax.

INCOME TAX

We recommend that the Board of Trustees continue the efforts already begun to procure for physicians the right to deduct traveling expenses and the expenses of postgraduate study in the computation of their federal income taxes.

DEFENSE OF MALPRACTICE SUITS

We recommend continued and careful study of the proposed plan for the introduction of medical defense of malpractice suits with a view to determining what assistance can best be afforded by the central bureau to the several state associations maintaining or planning for medical defense services.

MEDICAL PRACTICE ACTS

We urge that energetic action be taken to develop as promptly as possible the draft of a model medical practice act after which states may pattern their own laws so far as may be practicable. This should be done, if possible, in time to permit the use of the proposed draft by state associations desiring to procure legislation at the coming sessions of the state legislatures, commencing in January next.

LYE

We heartily commend to the House the splendid results attained by the Committee on Lye Legislation, under the leadership of Dr. Chevalier Jackson. We recommend that the committee be authorized to continue its efforts, and that all possible aid be extended to it.

CONTROL OF CLINICAL LABORATORIES

We recommend that the House adopt the report of the joint committee of the American Medical Association, the American Chemical Society and the American Association of Pathologists and Bacteriologists on the control of clinical laboratories, which reads as follows:

REPORT OF JOINT COMMITTEE

In proposing the following specific recommendations concerning the regulation of clinical laboratories, the joint committee of the American Medical Association, the American Chemical Society and the American Association of Pathologists and Bacteriologists wishes to emphasize the importance of encouraging and insuring the adequate education of every laboratory worker in the fundamental sciences which he applies. A clinical laboratory, as that term is used by the committee, is an institution organized for the practical application of one or more of the fundamental sciences by the use of specialized apparatus, equipment and methods for the purpose of ascertaining the presence, progress and source of disease.

It is the unanimous judgment of the committee:

1. That it should be illegal for any person not licensed by law so to do, to assume the responsibility of making the diagnosis or of deciding on the progress or source of disease on the basis of any results of a chemical, pathological, serologic, bacteriologic, radiologic or microscopic observation or other laboratory examinations undertaken; and that where laws do not now restrict diagnosis or the clinical interpretation of laboratory examinations to licensed classes of medical practitioners, laws should be enacted to effect that end.

2. That any law providing for the licensing of professional workers in laboratories devoted to ascertaining the presence, progress or source of disease should provide for the examination of members of each profession by competent authorities belonging to the same profession.

3. That as long as an organization or individual engaged in examinations to ascertain the presence, source or progress of disease refrains from all diagnostic and prognostic interpretation of the results of such laboratory tests as provided for in Paragraph 1, any effort to force such organization or individual to place itself under the direction of a representative of any other profession is to be deprecated.

4. That the American Chemical Society, the American Medical Association, and the American Association of Pathologists and Bacteriologists should cooperate to establish the principles enumerated in the foregoing resolution whenever legislation in this field may be proposed, and that the cooperation of other national bodies should be solicited.

5. That clinical laboratories be standardized in accordance with the principles laid down in the preceding paragraphs, and legislation should be enacted to insure competent personnel and suitable equipment.

We recommend that the committee of the American Medical Association appointed to undertake the investigation of clinical laboratories with a view to securing responsible and proper supervision of them and adequate equipment and facilities for this branch of medical work be continued.

INDIAN SERVICE

We recommend that the American Medical Association cooperate with the Secretary of the Interior in his efforts to procure adequate compensation and improved working conditions for physicians in the Indian service.

PATENT AND QUACK MEDICINES

We recommend continued effort to procure appropriate administration of the patent and trade-mark laws, and the amendment of those laws, if necessary, in order that the public may be protected from exploitation through the use of patents and trade-marks in the sale of nostrums.

DEFENSE OF MEDICAL RESEARCH

We welcome the entrance of an organization of laymen in the protection of public health through the defense of medical research. The Society of Friends of Medical Progress, Incorporated, should be encouraged in its efforts by the Association and through the support of individual members.

We especially congratulate the Board of Trustees on the results attained by the completion of the Association's magnificent building in Chicago. The centralization of publishing and administrative activities is most efficiently provided for. We commend to the members of the House the acceptance of the invitation of the home office management to inspect throughout the headquarters building.

We note with extreme satisfaction the well developed plan of the Board of Trustees to retain for the Association the wise counsel of Dr. George H. Simmons. We trust that his services as Manager and Editor Emeritus may be retained by this Association through many years to come. We recommend its adoption.

E. ELLIOT HARRIS, Chairman.
IRVIN ABELL,
SOUTHGATE LEIGH,
WALTER F. DONALDSON, Secretary.

SECRETARY'S REPORT

We note with gratification the increase for the year in the number of members and Fellows of the Association. We recommend that the House cooperate with the Secretary in his efforts to increase the number of Fellows. Members of the House may assist materially by conveying to others a more complete understanding of the requirements for Fellowship. The Secretary's report emphasizes the value to medical organization of the employment by constituent societies of full-time secretaries. We recommend the approval of the suggestion. In societies financially unable to employ such an officer, we urge that the existing part time secretary be given such facilities in the form of separate office space, equipment and assistants as will tend specifically to serve the best interests of the state association and its component societies. In many constituent societies the annual dues should be increased to provide for better secretarial service.

COUNCILOR DISTRICTS

We share the opinion of Secretary West regarding the underlying reasons for the recorded presence of too many moribund county medical societies. Their continued existence is a direct challenge to increased energy on the part of many state councilors. The organization of councilor district societies would in many instances undoubtedly result in renewed activities in component societies and tend to discourage the organization of independent local societies.

CONSTITUTION AND BY-LAWS OF STATE ASSOCIATIONS AND COUNTY SOCIETIES

On pages 31 and 32 of the Handbook of the House of Delegates, the Secretary discusses exhaustively the advisability of seeking the adoption of a reconstructed constitution and

by-laws for state associations and for county societies as well. Your committee recommends that a special committee of three be appointed, of which the secretary should be chairman, for the purpose of investigating and submitting the recommendations to the House of Delegates at its next annual session, regarding the revised constitutions and by-laws for constituent state associations and component societies.

RELATIONS WITH OTHER NATIONAL MEDICAL ASSOCIATIONS

We recommend that the House authorize the appointment of duly accredited delegates by the President to the annual meetings of other national medical associations considered by the President as being worthy of being more closely related to our own organization.

THE AMERICAN MEDICAL ASSOCIATION BULLETIN

We appreciate the great value of the BULLETIN to organized medicine in this country, and advise that it be sent, as during the past year, to all Fellows of the Association free of charge. We urge members and officers of the constituent associations and component societies to contribute to the BULLETIN.

ANNUAL CONFERENCE OF SECRETARIES OF CONSTITUENT STATE ASSOCIATIONS

The annual conference of secretaries of state associations, held in Chicago, should be continued and the various constituent associations are urged to insist on the attendance of their respective secretaries. The expense to the Association of conducting this annual conference is undoubtedly a good investment.

We approve the request of the Secretary of the Washington Academy of Sciences, page 34, and recommend its adoption.

OFFICIAL VISITS

We commend the President, President-Elect, Editor and General Manager, members of the Board of Trustees, Speaker of the House, heads of departments and the Secretary for their official visits to meetings of state, district and county societies during the past year. We trust that the House fully recognize the value of such visits and encourage their continuation.

Your committee commends to the fullest the activities of the office of the Secretary of the Association during the past year, and solicits on behalf of the Secretary the closest possible cooperation of the secretaries of the constituent state societies.

E. ELLIOT HARRIS, New York, Chairman.
SOUTHGATE LEIGH, Virginia.
W. A. DONALDSON, Pennsylvania.
IRVIN ABELL, Kentucky.

This was passed.

Report of the Reference Committee on Amendments to the Constitution and By-Laws

Dr. William Gerry Morgan, chairman, presented a supplemental report of the Committee on Amendments to the Constitution and By-Laws, as follows:

Your committee, to which was referred the proposed amendment to Section 2, Chapter 7, of the By-Laws by Dr. Gerry Morgan, Washington, D. C., begs leave to report as follows:

We recommend that Section 2, Chapter 7, of the By-Laws be amended by striking out all the words in this section after the word "vote" at the end of the eighth line, that is, the following words:

The House of Delegates may recall the election of any officer or appointment of any member of a Committee or Council at any session by two-thirds vote of the members of the House of Delegates, present and voting, provided that no motion for recall shall be acted on until the day following that on which it is introduced.

Reasons: The matter is impossible under any circumstances, as there is no provision for recalling an elected officer. So far as it concerns the recall of an appointee of the House, the paragraph is superfluous inasmuch as any appointee or committee may be discharged.

Your committee recommends the adoption of the following: to amend Chapter II of the By-Laws by renumbering Sections 2, 3 and 4 to 3, 4 and 5 and to add an entirely new section to be known as Section 2, which shall read as follows:

SECTION 2.—During the annual presentation of the report of each Council, or Bureau, the privilege of the floor of the House of Delegates for a period of five minutes shall be extended to each Bureau Head and Council Secretary.

The report was adopted.

Under new business, Dr. McLean, Pennsylvania, reported a resolution concerning the practice of medicine for definite compensation by day, month or year, which was referred to the Judicial Council. He also presented a resolution on unprofessional prescribing of alcoholic liquors, which was referred to the Reference Committee on Legislation and Public Relations.

Dr. Arthur W. Booth, New York, presented a resolution prepared by Dr. Kevin, New York, on periodic medical examinations, which was referred to the Reference Committee on Hygiene and Public Health.

Dr. Edwards, California, presented a resolution concerning the preparation of a digest of malpractice suits to be sent to the attorneys of the constituent associations. The resolution was referred to the Reference Committee on Legislation and Public Relations.

Communications were presented by the Secretary and referred to the proper Reference Committees.

The House adjourned at 5:30 p. m., to meet at 2 p. m., Thursday, June 12.

(To be continued)

THE OPENING GENERAL MEETING

Tuesday Evening, June 10

The Opening General Meeting of the Association was held at the Auditorium Theater, and was called to order at 8 p. m. An invocation was rendered by Rev. James T. Stone. Following this invocation, the President, Dr. Ray Lyman Wilbur, introduced the mayor of Chicago, Hon. William E. Dever, who welcomed the Association to the city, pointing out that science has done much for Chicago and that the time is ripe for scientific men to enter into public affairs and to give advice to politicians on the conduct of those civic departments in which science is especially demanded. He concluded by offering to give to the physicians the keys of the city, particularly to those places which have not been closed up, and stated his view that physicians would not have wish to enter into such places in any event. President Wilbur next introduced the President of the Illinois State Medical Society, Dr. L. C. Taylor. Dr. Taylor called attention to the advance in the progress of medical science from the days when the physician rode with his handbag and dispensed pills to the country community, to the present time when, in Illinois alone, there are nearly 11,000 physicians rendering service to the people of the state. On behalf of the Illinois State Medical Society, he extended a welcome to the visiting physicians.

Dr. Archibald Church, president of the Chicago Medical Society, called attention to the great advantages of Chicago as a place for the annual session and, incidentally, with sly humor, noted the deficiencies of other American cities, so much so that Dr. Ray Lyman Wilbur suggested that Dr. Church might be suitably a citizen of either California or Florida.

Dr. J. W. Van Derslice, chairman of the Local Committee on Arrangements, made announcements concerning the entertainments for the remaining days of the session, and called attention particularly to the registration of the first two days—over five thousand—representing the largest registration ever reached in a similar period.

Following the announcements by Dr. Van Derslice, Dr. Wilbur introduced Dr. Frank Billings, who then introduced to the assembly Dr. Charles Regaud of Paris, a member of the Pasteur Institute; also Dr. Louise Martindale of London, delegate to the Section on Obstetrics, Gynecology and Abdominal Surgery.

The President, Dr. Wilbur, then introduced to the audience the President-Elect, Dr. William Allen Pusey, who made his presidental address (this issue, page 1905).

THE JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION

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SATURDAY, JUNE 14, 1924

DRUG ADDICTION IN THE UNITED STATES

While it is probably impossible to estimate accurately the number of drug addicts in the United States, the assertion of Kolb and Du Mez[1] that the number is approximately 110,000 at this time, and that it has apparently been decreasing steadily since 1900, seems fairly well established. This estimate is much lower than other recent estimates, as, for example, that circulated broadcast by the International Narcotic Education Association, Incorporated, of Los Angeles, which placed the number of heroin addicts alone as high as 1,000,000.

It is obviously impossible to give the exact count of persons addicted to narcotics in this country, because of the social and legal factors that tend to make addiction a secret practice. In arriving at such reassuring figures in comparison with the prevailing idea of the extent of addiction, the Public Health Service investigators have analyzed the more important recent narcotic surveys and reports of the Bureau of Internal Revenue, and have made use of all other available information. Among the data that they considered may be mentioned a survey made in Tennessee in 1915 by the Pure Foods and Drugs Commission; the report of a committee appointed by the Secretary of the Treasury in 1918, which made a comprehensive investigation; data furnished by five year records kept in Pennsylvania; army findings; clinical reports, and, finally, estimates based on the average dosage and the maximum number of addicts that could be provided for from the available supply of narcotics.

Several factors have influenced the trend of addiction in this country since 1900, at which time the authors estimate that there may have been 264,000 addicts. The important factors are the available supply of the drug, the attention given to the problem by physicians, and restrictive laws and their enforcement. The Food and Drugs Act of 1906, requiring manufacturers to state on the label the amount of cocain, opium and opium alkaloids or derivatives contained in their preparations, in addition to other benefits, did away with numerous opium cures that contained opium or some derivative as the chief ingredient. It is believed that during the last six years the decrease in addiction has closely paralleled the decrease in available narcotics.

The drug used also has changed in recent years. Before the enactment of restrictive laws in this country, there was considerable opium smoking and addiction to gum opium and laudanum; but today those addicts have changed to more convenient and more readily available forms, and use the alkaloids or their derivatives almost exclusively. Opium smoking is now rare in the United States, but former smokers now taking opium or heroin are occasionally found.

Some other interesting facts are brought out in the report; for example, the greater number of addicts in prison at present as compared with former years is believed to be due to law enforcement and not to an increase in this class of individuals, and the proportion of the delinquent type of addict found to be increasing is believed to be due to the gradual elimination of the usual types.

If this very conservative estimate of 110,000 addicts for the entire country is true, and presumably it should be, and if the trend of addiction is as shown by these investigators, these facts constitute a cause for congratulation. The data presented apparently indicate that drug addiction in the United States will progressively decline and, eventually, cease to be a serious problem, provided, of course, restrictive measures continue to be enforced.

In this connection, attention may be called to the request of the International Narcotic Education Association, Incorporated, that Congress print as a public document 50,000,000 copies of the association's leaflet, "The Peril of Narcotics—a Warning to the People of America." The federal Narcotics Control Board, to which the matter was referred by the Senate Committee on Printing, points out that the leaflet is based on the entirely erroneous premise that "the growth of narcotic addiction in the United States and the world over is the most alarming symptom of the New Century"; that the statements made with regard to the per capita consumption of narcotics in the United States as compared with other countries are based on figures published seven years ago and do not in any way show present conditions; that the statements with regard to the prevalence of narcotic addiction among school children are untrue and are such as would tend to create popular hysteria; and that the assertions that one-fourth grain of heroin will cause addiction in a child and that one ounce will make 2,000 addicts are beyond comprehension. The article estimates the number of addicts in the United States at one and three-fourths million, and the board points out that a recent survey made by the narcotic officers throughout the United States shows that the number is well within the half million mark.

1. Kolb, Lawrence; and Du Mez, A. G.: The Prevalence and Trend of Drug Addiction in the United States and Factors Influencing It, Pub. Health Rep. **39**: 1179 (May 23) 1924.

Unfortunately, this is not the first instance in which the International Narcotic Education Association, Incorporated, has undertaken to disseminate false and misleading statements concerning narcotic addiction. In a recent statement, it alleged that a representative of the American Medical Association had testified before a congressional committee that heroin addicts in the United States numbered 1,000,000, whereas the stenographic report shows that he made no such estimate. Even earlier, figures were published to show that in 54.6 per cent. of all cases the origin of the drug habit is frequent prescriptions or treatments personally administered; no reference was made to the fact that the percentage stated was based on interviews with a relatively small group of addicts, in a Southern city of approximately 58,000 inhabitants, before the enactment of the Harrison Narcotic Law.

On the whole, the International Narcotic Education Association, Incorporated, seems to be in need of information and education before it can qualify as a teacher for the world at large. The physicians whose names appear on its advisory council will do well to see that it procures such information and education before proceeding further with its self-imposed task. Unless they can do that, it seems of doubtful wisdom for them to continue to lend the influence of their names and reputations to the propaganda of the organization.

The contrast between propaganda statements of the character of the leaflet referred to and the calm, scientific report of the officials of the United States Public Health Service is a striking one. Confidence of the public in work for the public health is more likely to be sustained by the publication of accurate statements of fact than by unwarranted and exaggerated warnings concerning conditions that do not exist.

BERIBERI AND RICE

Tropical beriberi has been shown in recent years to be the sequel of a diet in which decorticated rice is the principal element. There is no want of circumstantial evidence to suggest that, in the tropics, when highly polished rice is eaten almost exclusively, beriberi appears, and that beriberi seldom or never occurs when unpolished rice is the staple diet. Although this etiologic doctrine has been widely accepted, investigators occasionally bring forth new evidence indicating that there is some other and as yet unknown factor that enters into the cause of this disease. McCarrison,[1] who recently returned from India, has published the results of a five year study of this problem.

Beriberi is not widely distributed in India, although millions of people live in regions where rice is widely cultivated. Endemic beriberi is limited to a narrow coastal region in the northeast part of the Madras presidency, and to a few smaller circumscribed areas. There is a strip of territory on the west coast of India in the same latitude, with a larger gross cultivated area under rice, and a relatively equal number of modern rice mills. Beriberi is wholly unknown in the western region, but it has been endemic in the eastern coastal area for many years. According to the author, if beriberi is so closely related to the consumption of decorticated rice, it should be as common on the west coast of Bombay as it is on the northeast coast of Madras. Rice has been milled by machinery only in recent years in these districts; but, in spite of the present large number of rice mills, beriberi has enlarged its endemic haunts little, if at all. Malcolmson mapped out these endemic areas eighty-nine years ago almost precisely as McCarrison maps them today. Beriberi therefore existed long before rice machines were introduced, and it prevails today, although to a less degree, in country districts where people still pound their rice. Among 12,500 cases of beriberi reported from the northeast coast of Madras in the last five years, more than 2,000 were in country districts where pounded rice is generally used.

Contrary to a common opinion, Mohammedans suffer more from beriberi than Hindus in the endemic areas, although Hindus restrict themselves much more to rice. Pariahs, who eat anything, suffer most in the endemic areas; native Christians, who have no food scruples, come next; Mohammedans, who eat most things, come next, and Hindus, the greatest rice eaters of all, come last. In a total of 565 cases of beriberi in Indian soldiers stationed at various places, 492, or 89 per cent., occurred in Madrassis, and the majority of these came from the northeast coast, where beriberi is endemic. Residence in the endemic areas seems to impart to some persons a susceptibility to beriberi. Rice exported from endemic areas to other countries does not appear to be associated with the spread of this disease, and such facts almost force McCarrison to conclude that the endemic regions themselves are concerned in the cause of beriberi.

Pigeons were fed in 1919 exclusively on rice said to have beriberi-producing qualities, and not one developed the disease. Pigeons were fed in 1923 on rice that was said to have beriberi-producing qualities, and 11 per cent. developed beriberi. The latter pigeons came from an endemic region; the former pigeons did not. It was not only among Bangalore pigeons fed on rice from Masulipatam that beriberi developed; it occurred also in Bangalore birds fed on millet and polished rice grown in a nonendemic area. Neither the millet nor the rice fed separately causd the disease, but the two fed together did. Pigeons fed exclusively on polished rice did not survive long enough to develop beriberi, so it seems that a little vitamin B, provided the amount is always insufficient, is necessary for the disease to appear.

Thirty cases of beriberi occurred in a battalion of 800 Gurkhas who had subsisted for months on decorticated

1. McCarrison, Robert: Rice in Relation to Beriberi in India, Brit. M. J. 1: 414 (March 8) 1924.

rice, vegetables, pulses, oil and condiments and, for two weeks previous to the outbreak, on spoiled rice. The case incidence in this battalion, 3.7 per cent., was almost identical with that of 105 Bangalore pigeons fed on beriberi-producing rice or on raw polished rice and millet. Four of these pigeons at necropsy showed changes characteristic of true beriberi, a case incidence of 3.8 per cent. Why did 770 men among 800 subsisting on the same deficient diet for months escape beriberi? Why did 101 of 105 pigeons fed on the same diet escape beriberi?

The accepted views regarding beriberi and rice, as far as India is concerned, require modification, the author concludes. Vitamin deficiency, he believes, is rarely the sole agent in the cause of beriberi.

Current Comment

THE CHICAGO SESSION

The Chicago Session of the Association promises at the time we go to press to be the greatest in matter of attendance and in intensity of interest of any session ever held by the American Medical Association. The registration up to this time was 6,970. The House of Delegates had an attendance of 132. Meetings of the House were held in the new Assembly Room at the headquarters building, and arrangements were made to furnish a luncheon to the Delegates in the lunch room used for Association employees, so that more time was allowed for actual work in the House. This is indicated by the scope of the minutes of the first day's session, published in this issue. The minutes of the Thursday session, together with those of the sections, will appear next week. All the scientific meetings, the motion picture exhibit and the diagnostic clinics, as well as the Scientific and Commercial exhibits, were held on the Municipal Pier. The Commercial Exhibit was the largest ever assembled, and the Scientific Exhibit aroused unusual interest, particularly the special exhibits of fresh pathologic tissues and the prevention and treatment of heart disease. The excellent arrangements made the registration of the large number of Fellows easy, and general satisfaction was expressed by all concerned in the character of the arrangements. A significant feature of the present session was a testimonial dinner to Dr. George H. Simmons in honor of his twenty-fifth year as Editor of THE JOURNAL and General Manager of the Association. An account of this dinner appears elsewhere in this issue. The Opening General Meeting of the Association was held in the Auditorium Theater, with about 3,000 persons attending. The address of the President was broadcast by radio and, in addition, received wide publicity through the press. It is significant of the progress which the work of the Association is making in the estimation of the public that many columns of space were given to the affairs of the Association and that, too, on the first pages of metropolitan newspapers at a time when the Republican national convention was holding first place in newspaper interest.

ABANDONED THEORIES REGARDING NARCOTIC DRUG ADDICTION

Among the problems presented in the management of narcotic drug addicts are the disagreeable manifestations that may attend the discontinuance of the drug.[1] The so-called withdrawal symptoms that arise in the case of those who have become accustomed to large doses of morphin are well known to all practitioners who are compelled to deal with such habitués. They vary from mere discomfort to extreme forms of malaise, occasionally resulting in severe collapse. These phenomena must necessarily be taken into account in any attempt to explain the nature of addiction and its consequences. Most of the hypotheses ventured thus far have failed to be substantiated when they were put to severe experimental tests. For example, it has repeatedly been alleged that the continuous taking of morphin causes the presence in the blood serum of a substance having a protective effect against this drug. Pellini and Greenfield,[2] however, have been able to show that the blood of a tolerant animal does not contain any protective substance against morphin; nor in the blood serum of a human being who has acquired a high tolerance to morphin could they detect any substance capable of conferring any degree of immunity to the toxic action of morphin on an animal into which it is injected. In their latest investigations in this field, at the University and Bellevue Hospital Medical College, these investigators[3] have exploded the theory advanced by Valenti[4] that a specific toxic substance is produced by habituation to morphin. At any rate, in the blood of dogs habituated to morphin, no product is detectable that is capable of producing circulatory disturbances in normal animals into which the serum is injected. Pellini and Greenfield recall that there has been a more or less widespread belief that there is such a substance and that it is the cause of the well known symptoms of morphin withdrawal when no longer neutralized by the continued administration of morphin; and some methods of treatment of drug addiction have been founded on this belief. The time has arrived for seeking a new point of departure in the explanations of the varied manifestations that are presented by drug addicts.

1. An extensive bibliography on the subject of morphin addiction is given by DuMez, A. G.: Increased Tolerance and Withdrawal Phenomena in Chronic Morphinism, J. A. M. A. **72**: 1069 (April 12) 1919.
2. Pellini, E. J., and Greenfield, A. D.: Narcotic Drug Addiction, I, The Formation of Protective Substances Against Morphin, Arch. Int. Med. **26**: 279 (Sept.) 1920.
3. Pellini, E. J., and Greenfield, A. D.: Narcotic Drug Addiction, II, The Presence of Toxic Substances in the Blood Serum in Morphin Habituation, Arch. Int. Med. **33**: 547 (May) 1924.
4. Valenti: Arch. f. exper. Path. u. Pharmakol. **75**: 437, 1914.

Vital Capacity of Miners.—Vital lung capacity observations were made on approximately eighty bituminous coal miners whose ages ranged from 17 to 73 years. The time spent in this occupation ranged from one week to fifty-seven years with an average of 16.7 years. The average vital lung capacity calculated from surface area, according to the methods of Dreyer and West, was 93.4 and 91.4 per cent. of the normal respectively. No appreciable decrease in capacity was observed below the age of 46 years, or twenty-four years of service in the mines. The lower averages after these periods were attributed more to advancing age than to occupation.—J. A. Myers: *Am. Rev. Tuberc.* **9**:55 (March) 1924.

Medical News

(PHYSICIANS WILL CONFER A FAVOR BY SENDING FOR THIS DEPARTMENT ITEMS OF NEWS OF MORE OR LESS GENERAL INTEREST: SUCH AS RELATE TO SOCIETY ACTIVITIES, NEW HOSPITALS, EDUCATION, PUBLIC HEALTH, ETC.)

ARKANSAS

Hospital News.—Four more hospitals will be completed in Little Rock within the next year: the Missouri Pacific Hospital, which will accommodate 120 patients; the Baptist Hospital, which will cost $500,000; the sixty bed Children's Hospital, which will cost $150,000; and the Trinity Hospital, of fifty beds.

COLORADO

Personal.—Dr. William J. Bingham, Denver, is now in charge of the Hospital Americano-Latino, Puebla, Mexico.

Hospital News.—The Chamber of Commerce of Boulder recently approved plans for the construction of a $100,000 community hospital in that city.

ILLINOIS

Hospital News.—Work will start, about July 1, on a new hospital in Chicago Heights, at Fourteenth Street and Chicago Road, which will have a capacity of 185 beds.

Chicago

Hospital News.—The Lutheran church recently voted an appropriation of $1,500,000 for the Augustana Hospital, Cleveland Avenue, Chicago.——Bids have been taken for the erection of a $15,000 nurses' home for the Keystone Hospital on Kostner Avenue. Dr. Lewis K. Eastman is president of the board.

Personal.—Dr. Dean Lewis will address the Utah State Medical Association, June 20 and 21, on "Reconstructive Surgery" and "Intestinal Obstruction."——Dr. Henry B. Thomas, Chicago, recently held an orthopedic clinic and gave an address before the Allen County Medical Society, Fort Wayne, Ind.——Prof. Julius Stieglitz, Ph.D., University of Chicago, delivered the second course of Dohme lectures at Johns Hopkins University Medical Department, Baltimore, on "Chemistry and Recent Progress in Medicine," May 12-14.

INDIANA

State Board Makes Arrest.—J. T. Mehrlick, Indianapolis, was arrested, May 28, on a warrant sworn by the secretary of the State Board of Medical Registration and Examination, for practicing medicine without a license.

Personal.—Dr. Earl C. McBride, Terre Haute, was recently elected president of the Terre Haute Academy of Medicine.——Dr. William E. Mendenhall, Indianapolis police and fire surgeon, has been relieved of that position by the mayor, and Dr. Ray V. Converse appointed to succeed him.

KENTUCKY

Physician Held on Narcotic Charge.—Dr. Samuel C. Long, Monterey, recently arrested on a charge of violation of the narcotic act, it is reported, was held in the Franklin County jail, in default of bond.

New Department of Physiology.—A new department of physiology and pharmacology has been organized at the University of Louisville, with Dr. Henry G. Barbour, professor of physiology and pharmacology; William F. Hamilton, assistant professor of physiology; Rheinhard Beutner, assistant professor of pharmacology; Arville O. DeWeese, assistant professor of physiology and pharmacology, and Dr. Hulbert V. Noland, instructor in clinical pharmacology.

MARYLAND

Semiannual Meeting with Governor.—The semiannual meeting with the governor of the board of mental hygiene, board of welfare, and boards of managers of the state hospitals for the insane and feebleminded was held, May 28, at the Springfield State Hospital, Sykesville. The Clark Epileptic Colony, a group of four buildings for the treatment of epileptic patients recently completed at the Springfield State Hospital, was dedicated and formally opened for patients. The two dormitories, each in the new group of buildings, will accommodate 100 patients.

Personal.—Dr. Charles R. Truitt, Salisbury, has been reappointed county health officer.——Dr. Josiah S. Bowen has been appointed county health officer by the Baltimore County commissioners to succeed Dr. Harry M. Slade, who has been appointed medical examiner of the fire and police departments.——Dr. William S. Baer of Baltimore held a clinic, June 3, in the York Hospital at York, Pa., at the request of the Rotary Club of that city, at which time fifty-two crippled children were examined.——George E. Vincent, president of the Rockefeller Foundation, addressed the annual conference of health officers and county boards of health with the executives of the state department of health, June 6, at the Medical and Chirurgical Faculty Building, Baltimore.

MASSACHUSETTS

Psychiatrists Organize.—The Massachusetts Psychiatric Society was recently organized in Boston with the following officers: president, Dr. Walter E. Fernald, superintendent of the Massachusetts School for the Feebleminded, Waverly; vice president, Dr. George M. Kline, commissioner of the department of mental diseases, Boston, and secretary-treasurer, Dr. Ralph M. Chambers, assistant to the commissioner of the department of mental diseases, Boston. Dr. William A. White, superintendent of the government hospital for the insane (St. Elizabeth's Hospital), Washington, D. C., delivered the principal address.

MICHIGAN

Alumni Clinic.—The annual alumni clinic of the Detroit College of Medicine and Surgery will be held, June 16-20. Dr. John O. Polak, Brooklyn, will give a clinic in gynecology; Dr. Charles W. Stone, Cleveland, a heart clinic; Dr. Joseph C. Doane, Philadelphia, a chest clinic. Dr. Willard Bartlett, St. Louis, will give an address on "Surgery of the Thyroid," and Dr. Gustav Kolischer, Chicago, will talk on genito-urinary diseases.

Lawyers' and Physicians' Meeting.—The lawyers of Lansing were guests of the Ingham County Medical Society at a meeting, May 15, at which Dr. Albert M. Barrett, professor of psychiatry at the University of Michigan Medical School and director of the Psychopathic Hospital, Ann Arbor, gave an address on "The Psychiatric Aspects of the Behavior Problem."——There will be a joint picnic of the lawyers and physicians of Lansing at the farm house of Chief Justice Howard Weist of the state supreme court, June 14.

MISSOURI

Physicians Must Serve Prison Sentences.—It is reported that Dr. Leon Hurwitz, Joplin, and Dr. B. B. Jackson, Kansas City, must serve prison sentences for the unlawful sale of habit-forming drugs, according to notice from the federal court of appeals received at Kansas City, May 17. This is the second conviction for Dr. Hurwitz, it is said, who must now serve three years.

Support to Welfare Board Withdrawn.—The county support of the Sedalia Social Welfare Board was ordered withdrawn by the county court, effective June 1. The court stated that this action was taken to enable the county to take over the entire quota, $3,000, of the county for the Public Health Unit, the entire expense of which is about $10,000 annually. Of this total the state, it is reported, will allow $4,500, the Red Cross $1,300, the Antituberculosis Society $300, and the Metropolitan Insurance Company $900.

NEW YORK

Society News.—At a meeting of the Brooklyn Society of Internal Medicine, May 23, Dr. Bernhard A. Fedde was elected president; Dr. Joseph Francis Ward, secretary, and Dr. Charles E. Hamilton, treasurer.

University of Rochester School of Medicine and Dentistry.—A limited number of students will be received at the University of Rochester School of Medicine and Dentistry for the session beginning September, 1925. Candidates probably will be selected about July 1, 1925, and those wishing admission should write for application blanks, which should be returned to the dean's office properly filled out not later than May 1, 1925. The requirements listed in the circular of the University of Rochester are minimal, and additional training particularly in the sciences having a direct bearing on medicine will be to the advantage of the candidate, according to an announcement from the secretary's office received, June 6.

New York City

Hospital News.—The Bronx Hospital, Fulton Avenue and One Hundred and Sixty-Ninth Street, which is adding a new $750,000 building on the adjoining lot, received a contribution of $200,000 from the directors, it was announced, May 16.

Personal.—Robert Thorne has been elected president of the Neurological Institute to succeed the late Robert P. Perkins. ——Dr. Ernest M. Vaughan, medical assistant district attorney, has been appointed associate professor of pathology at the Long Island College Hospital, Brooklyn.——Dr. Phillip R. Lehrman has been appointed assistant professor in the department of neurology and psychiatry at the New York Post-Graduate Medical School and Hospital.——Victor C. Myers, Ph.D., professor and director of the department of biochemistry, New York Post-Graduate Medical School and Hospital, for thirteen years, has resigned to accept the appointment of professor of biochemistry at the State University of Iowa and pathologic chemist to the University Hospital.

OHIO

Conference of Health Boards.—At a meeting of representatives of the boards of health of Washington Court House and the county, a contract was signed for the joint employment of Dr. Theodore F. Myler of Cleveland as full-time health officer, with the county paying 60 per cent. and the city 40 per cent. of the officer's salary, and with the agreement that his time shall be given to each in the same proportion. Dr. Myler took over his new duties, June 1.

Bogus Medical Diplomas Found.—When the arrest was made of W. H. Hart at Marietta for practicing medicine without a license, a quantity of fake medical diplomas were found. The diplomas purported to be issued by the Royal College of Physicians and Surgeons of London, England, and some were printed, it is reported, with Hart's name appearing on them. W. L. H. Moore was arrested also charged with violating the narcotic laws. The two men are said to have operated together. Those making the arrest believe the diplomas were forged from a photographic copy. Both men were put in jail.

PENNSYLVANIA

Tri-County Society's Annual Meeting.—The annual meeting of the Tri-County Medical Society will be held at the Harrisburg Country Club, June 26, when members of the Dauphin County Medical Society will be the hosts. The entire afternoon will be given over to tennis, golf and other sports.

Philadelphia

Personal.—Dr. V. G. Anrep, University of London, England, delivered two lectures before the Physiological Society of Philadelphia, June 2-3.——Dr. W. Forest Dutton, medical director of the hospitals of the graduate schools of medicine of the University of Pennsylvania, has resigned. Dr. Dutton expects to leave this city for northwest Texas to establish a laboratory there for the study of anemia.——Dr. P. Brooke Bland, assistant professor of gynecology, Jefferson Medical College, conducted an all day gynecologic clinic in the Presbyterian and St. Francis hospitals at Waterloo, Iowa, for members of the Waterloo Medical Society, Wednesday, May 22, and in the evening presented a paper on "Significance of Gynecologic Symptoms" at the annual meeting of the society. ——Dr. Martha Tracy, dean of the Woman's Medical College, will take a year's leave of absence, beginning June 15. During her absence, Dr. Mae L. Myers, professor of histology, will have charge of student relations and Dr. Henry D. Jump, professor of applied therapeutics, will act as head of the faculty.

PHILIPPINE ISLANDS

Personal.—Dr. Arturo Garcia, head of the department of anatomy, University of the Philippines College of Medicine and Surgery, Manila, has been elected faculty representative on the board of regents of the university.——Dr. Rafael Jesus Perez, Manila, is the first Filipino to receive a commission in the Medical Reserve Corps of the U. S. Army. About thirty Filipinos will receive appointments to the commissioned personnel of the reserve corps in response to a request for applications from Filipino physicians recently issued.

CANADA

Fund for Mental Hygiene.—The Rockefeller Foundation has recently granted the sum of $75,000 to the Canadian National Committee for Mental Hygiene, for research, experimentation and demonstration in mental hygiene. It is understood that a similar amount will be forthcoming from Canadian sources, which will be devoted to the study of children for a five-year period.

Association News.—At the annual meeting of the Northumberland and Durham Counties Medical Association held, recently, at Coburg, Ont., officers for 1924 were elected as follows: president, Dr. Henry W. Benson, Port Hope, Ont.; first vice presidents, Drs. Alexander C. Beatty, Garden Hill, Ont., and James C. Hutchinson, Grafton, Ont., and secretary, Dr. Diamond, Port Hope, Ont.——At the meetings of the spring session of the Western University Faculty of Medicine, London, Ont., Dr. John D. Comrie, Edinburgh, Scotland, gave an address on "Nephritis"; Dr. Alexander Primrose, Toronto, Can., on "Tumors of the Breast," and Dr. Allen B. Kanavel, Chicago, on "Neuralgias of the Face."

Personal.—Dr. Frederick G. Banting, Toronto, and F. W. Merchant, Toronto, were the recipients of the degree of doctor of laws, recently, from the Western University Faculty of Medicine, London, Ont.——Dr. Afriano de Amaral, of São Paulo, Brazil, the noted toxicologist, recently arrived in Toronto to study the production and use of insulin at the University of Toronto Faculty of Medicine. Dr. de Amaral, who is representing Brazil, will place his observations at the disposal of his government.——Dr. O. R. Avinson, who for the last thirty-one years has practiced medicine in Korea, Asia, where he founded a medical college, was recently presented with the honorary degree of doctor of medicine from the University of Toronto.

GENERAL

American Association of Genito-Urinary Surgeons.—At the annual meeting of this association, May 26-28, at Stockbridge, Mass., the following officers were elected: president, Dr. Arthur L. Chute, Boston; vice president, Dr. William F. Braasch, Rochester, Minn., and secretary-treasurer, Dr. Henry G. Bugbee, New York.

Baking Industry to Honor Pasteur.—A bronze bust of Pasteur will be unveiled and dedicated at the American Institute of Baking, 1135 Fullerton Avenue, Chicago, early in September, before the American Bakers' Association meeting opens at Atlantic City, N. J., September 21. The baking industry considers Pasteur "the father of modern baking."

Lister Ward Relics.—Prof. J. H. Teacher obtained from the demolition contractor and presented to the University of Glasgow relics from the famous and recently much discussed Lister Ward which is being demolished (THE JOURNAL, January 12, p. 137). The gift includes a simple iron grate, an ashpan, a steel fender and a plain gray stone mantelpiece.

Bill on Heroin Passes.—In the closing hours of Congress, the bill prohibiting the importation of crude opium for the manufacture of heroin was passed and signed by the President. The bill amends the existing law (Act of Feb. 9, 1909) by providing that "no crude opium may be imported or brought in for the purpose of manufacturing heroin."

American Laryngological, Rhinological and Otological Society.—At the annual meeting of this association in St. Louis, May 29-31, the following officers were elected: president, Dr. William H. Haskin, New York; vice presidents, Drs. Gordon Berry, Worcester, Mass., Hugh M. Taylor, Jacksonville, Fla., George F. Keiper, Lafayette, Ind., Don A. Vanderhoff, Colorado Springs, Colo., and Edward C. Sewall, San Francisco; secretary, Dr. Robert L. Loughran, New York, and treasurer, Dr. Ewing W. Day, Pittsburgh.

Association of American Orthopsychiatrists.—The organizing committee of the Association of American Orthopsychiatrists called a meeting, at the Institute of Juvenile Research, 721 South Wood Street, Chicago, June 10. The members of the committee were Dr. Victor V. Anderson, New York, chairman; Dr. Herman M. Adler, Chicago; Dr. Lawson G. Lowrey, Minneapolis; Dr. David M. Levy, Chicago; Malcolm A. Bliss, St. Louis, and Karl A. Menninger, Topeka, Kan., secretary. The program comprised the general business of organization, the adoption of a constitution, the discussion of plans for an association journal, and a program consisting of nine papers.

Crampton Bill Passed by House.—June 9, 1924, the Crampton bill providing for the establishment of a special bureau of prohibition in the Treasury Department was passed by the House in the closing days of the session. The bill places the supervision of industrial alcohol distilleries, as well as the enforcement of the Volstead law, in charge of the commissioner of prohibition. It creates a division of industrial alcohol and chemistry to administer the manufacture, dis-

tribution and sale of alcohol for scientific research and lawful industry. The bill, however, did not pass the Senate. The objections were made by manufacturers, who asked for hearings in the Senate. These objections are based largely on the fact that commercial interests engaged in the manufacture of alcohol for industrial purposes would be upset by any change in the existing methods of control of such industry.

Testimonial Dinner to Dr. George H. Simmons on Monday Night, June 9.—A testimonial dinner with the presentation of his portrait was tendered to Dr. George H. Simmons at the Congress Hotel, Chicago, by more than four hundred Fellows of the Association, and invited guests. Addresses on the work of Dr. Simmons were made by Drs. Harvey Cushing, Frank Billings, William H. Mayo and Mr. Will Owen Jones, editor of the *Nebraska State Journal*. An address on Dr. Simmons as a citizen, prepared by Dr. Hubert Work, was read in his absence by Dr. Ludvig Hektoen. The portrait of Dr. Simmons was presented by Dr. William S. Thayer and a response was made by Dr. Simmons. The portrait is being hung in the Assembly Room of the House of Delegates at the headquarters of the Association.

Municipalities May Ban Prescription Liquor.—The Supreme Court ruled, May 27, that municipalities are at liberty to prohibit the sale of intoxicating liquor on physicians' prescriptions. Justice McReynolds said that neither the eighteenth amendment nor the Volstead act grants the right to sell intoxicating liquor within a state. The opinion was handed down in a case brought from California by Merlin W. Hixson, a druggist of Los Angeles, to test an ordinance of that city which prohibits druggists from furnishing more than a half pint of intoxicating liquor on a physician's prescription. Justice McReynolds said that Hixson had failed to raise any substantial national question, and that nothing in the Volstead act lends color to the suggestion that it endows pharmacists with the right to dispense liquor.

LATIN AMERICA

Typhus in Chile.—The *Revista de Beneficencia Pública* states that the hospitals at Quirihue and at Temuco have been swamped with the number of the cases of exanthematous typhus which have been occurring in southern Chile.

The National Medical Congress in Venezuela.—The next triennial medical congress of Venezuela is announced to be held in Caracas, Dec. 1-8, 1924, just preceding the celebration of the centennial of the battle of Ayacucho in the fight for independence. These national congresses make a special study of the diseases peculiar to or prevalent in Venezuela, and a vice president and a committee have been appointed for each state.

Personal.—The *Bulletin* of the public health service in Costa Rica announces that Dr. L. Schapiro is on his way to Costa Rica to found a public health laboratory. The International Health Board has appropriated $4,000 for the purpose. Dr. Schapiro was formerly in charge of the hookworm campaign and school inspection service in Costa Rica. ——Prof. T. G. Perrin of Mexico has been elected foreign member of the Academia de Medicina at Madrid.——Dr. Salvador Zubirán has returned to Mexico from a clinical trip to the United States.

The Hookworm Campaign in Colombia.—The *Repertorio* of Bogota states that 206,453 persons were given treatment in the campaign against hookworm in the four years closing with 1923, and 133,405 were cured. The total expense to the government was $267,616, which represented an average of $1.29 a person treated, and of $2 a person cured. The Rockefeller Foundation aided in the work, bringing the total expense per person treated to $1.59, and per person cured to $2.47. The expense per person cured has grown less each year, from $1.11 in 1920 to 59 cents in 1923.

FOREIGN

Collection of Fleas Presented to Museum.—Dr. Karl Jordan aided in the collection of the N. C. Rothschild collection of fleas, which was recently presented to the British Museum. It includes 40,000 specimens from the 680 known varieties, with 3,500 microscopic preparations. Among these are some made by Gauthier and Raybaud of Marseilles, in 1902, in studying the transmission of plague by fleas.

Personal.—Dr. G. E. de Schweinitz, Philadelphia, addressed the Belgian Société d'ophthalmologie, May 18, on the "Relation Between the Pressure from Sclerotic Arteries at the Base of the Brain and the Gaps in the Visual Field."——Dr. José Rodríguez Carracido, rector of the University of Central Spain, Madrid, professor of materia medica, was recently appointed honorary surgeon general of the army, and the Academia de Medicina held a special gala meeting in his honor with royal and military notables to greet him.——Dr. G. Pittaluga, Madrid, has been designated by the League of Nations to make a tour of inspection of conditions in regard to the public health in Russia and the Balkan states.——Dr. N. Charles, emeritus professor of obstetrics at Liége, was presented with addresses, a souvenir volume and a banquet in his honor on the date of his retirement, June 1.——In the parlors of a private house at Paris, Prof. R. Proust delivered an address recently on the "Treatment of Cancer with Both Surgery and Radium." He has been a pioneer in this line. Professor Bayet of Brussels presided at the meeting.——Dr. G. Radogna of Rome is in charge of the course of lectures on malariology which has been organized by the government of Italy for a party of Argentine physicians and engineers sent by the Argentine government for the purpose.——Professor Laignel-Lavastine, secretary of the International Society for the History of Medicine, has been invited to deliver a course of lectures at Brussels. He will lecture on "Depression in History, Art and Literature," "Idem in Different Centuries" and "The Pathologic Physiology of States of Depression." The lectures are open to the public free of charge.——Prof. K. F. Wenckebach of Vienna, Austria, lectured, recently, before the Royal College of Physicians of London, Eng., on "Angina Pectoris and the Possibilities of Its Surgical Relief," and the following day gave a clinical demonstration at Guy's Hospital.

Deaths in Other Countries

Dr. **F. F. Roth,** chief of staff of the Bamberg Hospital, honorary citizen of the city, aged 98.——Dr. **B. Bandelier,** director of the Schwarzwaldheim Sanatorium near Wildbad and author of a "Manual of Diagnosis and Treatment of Tuberculosis" that has passed through numerous editions. ——Dr. **José T. Ochoa,** founder and long president of the Sociedad Médica of Ciudad Bolivar, Venezuela.——Dr. **Manuel María Villada,** a leader in teaching the natural sciences in Mexico, member of the National Academy of Medicine, founder of the scientific review *La Naturaleza*, honorary president of the Alzate Society, and foreign member of nature study societies in different countries, aged 83.——Dr. **Julián Sierra y Domínguez,** professor of chemistry at National School of Medicine, Mexico, and director of the faculty of chemical sciences.——Dr. **David Newman,** Glasgow, Scotland, on the Indian Ocean, while returning from a visit to Australia where he had been received with acclamation by the surgical profession; author of volumes on "Surgical Diseases of the Kidneys," "Operations on Kidneys and Ureters" and many other subjects.——Dr. **Charles Robert Graham,** consulting surgeon to the Royal Albert Edward Infirmary; at his home on the shore of Morecambe Bay, aged 67.——Dr. **Carlos Domingo Sáenz,** professor of clinical medicine at the University at Quito.——Dr. **Ramon Arango,** formerly professor of surgery at the University of Colombia.

Government Services

Veterans' Bureau News

The director of the Veterans' Bureau has announced the appointment of Dr. Benjamin W. Black as executive officer of the medical division of the bureau, succeeding Dr. Andrew J. McIntyre, who has been detailed chief of the insurance medical section of the bureau. Dr. Black was formerly subdistrict manager of the Salt Lake City office of the bureau; Dr. McIntyre has been the executive officer of the medical division for the last three years.

Graduates Commissioned in Navy

Sixty-one senior students, graduating from various Class A medical colleges in 1924, will be immediately commissioned as assistant surgeons in the navy. They will be given the rank of lieutenants, junior grade, and assigned to the larger naval hospitals for their internships. The selection of these graduates is the result of a program established by the Secretary of the Navy, a year ago, to fill vacancies that have for many years existed in the medical corps of the navy. The new policy thus established gives to each of these students a commissioned status in the navy, with pay of $2,699 a year when the medical officer is without dependents, and $3,158 a year when such officer has dependents. These senior medical students, who are thus commissioned, will receive

such salaries and internship training for at least a year in the larger navy hospitals, located at Boston, New York, Philadelphia, San Diego, Calif., and San Francisco. As a further result of the new policy of the Navy Department, there now exist only twenty-seven vacancies in the navy medical corps. These twenty-seven vacancies are available for graduates of medical colleges who have had internship or professional experience, after graduation, fixed by the regular rules of the medical corps of the navy.

Foreign Letters

LONDON

(From Our Regular Correspondent)

May 19, 1924.

Criminal Responsibility Bill

In a previous letter (The Journal, Dec. 15, 1923, p. 2044) the recommendations were given of a committee of judges and lawyers appointed to consider whether any changes were necessary in the existing law with regard to criminal responsibility when the plea of insanity is raised. The committee recommended that the rules of criminal responsibility of the McNaghthen case be maintained, but that irresponsibility should be extended to acts committed under an impulse that could not be controlled in consequence of mental disease. Lord Darling has introduced into the House of Lords a bill to carry out this recommendation. He pointed out that the law of England had long allowed an accused person to escape capital punishment on the ground of insanity. Until 1883, the law was that in such a case the verdict was "Not guilty" because of insanity at the time of the crime, and the accused was ordered to be detained in a lunatic asylum "during his majesty's pleasure." Then the law altered the verdict to "Guilty of doing the act charged but insane at the time." That was illogical, and he proposed to bring back the law to what it was previously. His main reason for bringing in the bill was that there had long been a contest between the medical specialists and the law. The specialists contended that, as soon as a person was insane in their sense, he should be absolutely unpunishable, no matter what crime he committed. Some of them called themselves determinists; some of them considered that human beings were merely automatic creatures who acted with no control whatever over their actions. The law of England had never recognized that, and he hoped never would. But it recognized that a person might be insane in a legal sense and so entitled to escape punishment. Whenever a judge summed up in a murder case, he laid down the law as to insanity according to the McNaghthen rules. He told the jury to inquire whether, when an accused person committed the act, he knew its nature and quality, and to say whether he knew that the act was wrong. If so, he was guilty; if he did not know this, he was not guilty, on the ground that he was insane. Physicians had complained that no notice was taken of a further possibility, and that these rules simply dealt with the intellectual qualities of the man, which were not exhaustive in the case of insanity. To the rules in the McNaghthen case he proposed to add that the accused person was entitled to a verdict of not guilty on the ground that he was insane "if at the time the act was done or omission made he was suffering from such a state of mental disease as therefrom to be wholly incapable of resisting an impulse to do the act or make the omission."

In the debate that followed, Lord Hewart stated what was the opinion of the judges of the king's bench division, who were also judges of the court of criminal appeal. He had consulted twelve of his colleagues. Of these, ten were—as he was—emphatically opposed to the measure; one was emphatically in favor of it, and one was doubtful. He contended that if this new link was added to the alternatives before a jury, it would be impossible to distinguish between the impulse of the person said to be suffering from mental disease and the impulse of the ordinary offender, who was moved to commit crime for the desire of gain or for revenge. Did Lord Darling suggest that the rules of the criminal law should be altered from time to time to accord with the advance of medical science in regard to insanity? Was it not safer to say that, as medical science progressed in this matter, the law would still ask whether a person was to be excused because he did not know what he was doing, or if he did know, because he did not know that what he was doing was wrong? Was it fair that juries should have propounded to them the sort of puzzle which this proposal would involve? If the bill was passed, it would immensely increase the difficulties of both judges and juries.

The lord chancellor (Lord Haldane) said that it was proposed to introduce into the law a proposition that if a person suffered from mental disease which gave rise to an uncontrollable impulse he was to be absolved. There was a good deal to be said for that in the abstract, but the objection was that it was a question insusceptible of solution, except in the actual individual mind. Whenever there was a case that could not be defended on any other ground, it would probably be said that the offense was committed under an uncontrollable impulse. He had given some attention to the subject of psychology. Any more vague science than pyschology was at the present he did not know. It was a most dangerous science when applied to practical affairs. The bill received no support whatever, and was rejected.

Medical Overhaul Every Year

Last July, the Wesleyan and General Assurance Society introduced an innovation in insurance practice in this country. It instituted a scheme of free periodic medical examinations for ordinary policyholders. The scheme, in the first instance, was limited to persons insured for $5,000 and over. It has now been decided to extend the scheme to all policyholders insured for $2,500 and over. The scheme will apply to those already insured, as well as to "new business." The examinations are confidential; the results are not divulged to the society. In making the extension, the society has acted on three facts: (1) the favorable reception the scheme has received; (2) the satisfaction expressed voluntarily by many of those affected by the scheme, and (3) the belief that by the opportunities for detecting incipient disease, especially in those who believe themselves to be thoroughly fit, preventive medical work can be accomplished and life definitely prolonged.

PARIS

(From Our Regular Correspondent)

May 16, 1924.

The Health Committee of the League of Nations

The Health Committee of the League of Nations has just held its second session in Paris, under the chairmanship of Dr. Madsen of Denmark. Complying with the request of the Netherlands that something be done to bring relief from the excessive sanitary requirements that at present impede maritime commerce between nations, the committee has decided to recommend to the governments the conclusion of special arrangements; to study into practical measures that would naturally facilitate the conclusion of such arrangements, and to offer its services to the governments as a board of arbitration in case difficulties should arise in the application of the arrangements.

The committee, acting in accordance with requests received from the governments mainly concerned, has decided to pro-

pose to the Council of the League of Nations that the port of Singapore be established as the seat of a bureau of epidemiologic information for the Far East.

The committee instituted also a program of inquiry in regard to the incidence and epidemiology of malaria and the world supply of quinin. This inquiry, however, mainly concerns southeastern Europe, where malaria has assumed disquieting proportions. A subcommittee was appointed to make an investigation at first hand, during the three summer months, in Jugoslavia, Greece, Bulgaria, Roumania, Italy and possibly in Ukraine and Russia.

Notification of Occupational Diseases

The act of Oct. 25, 1919, brought occupational diseases, from the standpoint of occupational hazard, into the same category as industrial accidents. This law contains a twofold declaration: 1. Every occupational disease for which the sufferer demands indemnification must be reported to the mayor of the commune within fifteen days of cessation from work. 2. Certain occupational diseases must be notified by any physician who recognizes them. The list of notifiable diseases includes the most typical and the most frequent forms of intoxication resulting from lead or mercury. The law in question did not go into effect until 1921. In that year the number of notifications reached 148, fifty-three of which emanated from physicians, eighty-nine from the patients themselves, and six from both physicians and patients. The year 1922 was marked by a noteworthy increase, evidently due, not to an aggravation of insanitary conditions but rather to a more general adherence to the law, owing to the fact of its having become better known. Eight hundred and five notifications were sent in to the ministry of labor, 274 being received from physicians, 448 from the persons afflicted, and eighty-three from both. Plumbism was at the basis of 144 cases out of 148 notified in 1921, and of 797 cases out of 805 reported in 1922. The adjoined table shows the trades in which lead causes the most damage.

Distribution of Cases of Plumbism

	Number of Cases Notified	
	1921	1922
Manufactories of enamel ware	53	286
Accumulator factories	18	180
White lead and minium factories	5	94
Painting of various kinds	13	64
Metal foundries	12	35
Printing establishments	10	22
Chemical products, dyes	4	23
Factories of glass and crystal ware	6	19
Layers of sheet metal; lead workers	4	15
Various industries	19	59
Totals	144	797

From the standpoint of diagnosis, the manifestations of plumbism were much diversified:

	1921	1922
Ordinary lead colic	98	559
Lead colic, with anemia	7	27
Lead colic, with rheumatism, tremor and paralysis	6	35
Saturnine anemia, with or without motor symptoms	2	14
Nephritis	3	21
Rheumatism	..	8
Miscellaneous (arteriosclerosis, cirrhosis of the liver, hepatitis, enterocolitis, etc.)	12	27
Uncertain diagnosis	16	106
Totals	144	797

In a recent number of the *Gazette hebdomadaire des sciences médicales de Bordeaux*, M. J. Cavaillé, inspector of labor, notes with regret that the value of the notification of occupational diseases still remains unrecognized by many physicians, since 59 per cent. of the cases notified in 1921 and 56 per cent. in 1922 were not reported directly by the attending physician but by the patients themselves. However, if notification were carried out regularly, it would be possible to establish complete statistics which would have authoritative value in regard to cases of disease caused by the two main industrial poisons: lead and mercury. All the informational factors that enter into the problem of plumbism and mercurialism, such as case incidence, the risks characteristic of each trade, the essential symptoms and the clinical types of the disease, the gravity and duration of resulting incapacity, would thus be verified and brought up to date. The value would be no less from the preventive point of view, for such statistics would furnish the means of charting the various trades and industries from the standpoint of the intoxication menace. It would make it possible to set the limits of insanitary zones created by the use of lead and mercury, and would give us a more exact basis for a campaign of prophylaxis.

Physicians in the Chamber of Deputies

At the recent May election, there was a considerable number of physicians among the candidates. On the basis of complete returns from 569 districts, twenty-nine physicians have been elected to the chamber of deputies. Dr. Gosset, professor of clinical surgery at the Paris Faculty of Medicine, was not elected. Dr. Pinard, formerly a professor on the same faculty, was reelected and, by virtue of the fact that he is the oldest member of the assembly, will preside at the first session of the new chamber of deputies. It is the custom for the dean (by age) to preside over the new chamber until the credentials of the new body have been verified and approved. Dr. Pinard was born Feb. 4, 1844, and, being now 80 years old, it is not likely that any of the newly elected members will be older than he.

Physician the Winner of a Literary Competition

A physician, Dr. Pierre Lucchini, whose pen name is Pierre Dominique, has been awarded the Balzac literary prize. Lucchini was born April 8, 1891, at Courtenay, department of Loiret. He pursued his medical studies at Paris and practiced medicine three years in Corsica. The prize was given him in recognition of his romance, "Notre Dame de la Sagesse."

Marriages

NORVAL WILLIAM AUGUST HADDOW of Chippewa Falls, Wis., to Miss Louise Helen Miller of Minneapolis, April 16.

CHARLES A. RAGAN, Lieutenant Colonel, U. S. Army, retired, to Miss Dell McCue, both of New York, May 22.

CHARLES FRANKLIN BRANCH to Miss Annie Ethelyn Sargent, both of Burlington, Vt., April 26.

ELMER ELLSWORTH LANGLEY, Spokane, Wash., to Mrs. Pearl Grant Britton of Harrington, April 20.

FREDERICK G. BANTING, Toronto, Ont., Canada, to Miss Marion Robertson of Elora, June 4.

RICHARD H. MEADE, JR., Richmond, Va., to Miss Mazie G. Frazier of Chestnut Hill, June 14.

BURTON L. JACOBS, Chattanooga, Tenn., to Miss Rena R. Rowland of Nashville, April 13.

WILLIAM ALOYSIUS DWYER to Miss Amelia Mary Dunn, both of Paterson, N. J., June 5.

NORMAN ROSS SULLIVAN to Miss Leila Fay Suire, both of Grand Junction, Colo., June 2.

ALFRED M. GOLTMAN to Miss Helen Hirsch, both of Memphis, Tenn., March 27.

NEAL F. CROWE, Delavan, Wis., to Miss Ruth Rogers Barker of Daytona, Fla., April 12.

Deaths

Charles E. Marrow ✠ Lieutenant Colonel, U. S. Army, retired, San Diego, Calif.; University of Virginia Department of Medicine, Charlottesville, 1893; served in Cuba, Philippines, China and during the World War; was retired from active service February 28, 1922, for disability in the line of duty; aged 54; died, May 22.

Thomas A. Berryhill ✠ Captain, U. S. Navy, Mare Island, Calif.; George Washington University Medical School, Washington, D. C., 1884; officer in charge of the U. S. Naval Hospital and the Hospital Corps Training School, Mare Island, Calif.; aged 63; died, June 2.

Daniel Arthur Gray, Hot Springs National Park, Ark.; University of Pennsylvania School of Medicine, Philadelphia, 1869; formerly professor of clinical microscopy at the College of Physicians and Surgeons, Little Rock; aged 77; died, May 25, at a local hospital.

William H. H. Campbell, Owings Mills, Md.; University of Maryland School of Medicine, Baltimore, 1869; member of the Medical and Chirurgical Faculty of Maryland; Confederate veteran; aged 85; died, May 29, at Brookline, Mass., of senility.

Hugh Clarence Duffey, Washington, D. C.; Georgetown University School of Medicine, Washington, 1891; member of the Medical Society of the District of Columbia; aged 54; died, May 31, of a self-inflicted wound, while suffering from ill health.

John M. Reynolds, Grand Haven, Mich.; Homeopathic Medical College of Missouri, St. Louis, 1867; member of the board of education for nineteen years; aged 79; died, May 20, at the Mercy Hospital, Muskegon, following an operation.

Charles Allen Davis, South Dennis, Mass.; Howard University School of Medicine, Washington, D. C., 1883; Hahnemann Medical College of Philadelphia, 1884; member of the Massachusetts Medical Society; aged 76; died, April 29.

James Wright Williams, Weston, Ohio; Eclectic Medical Institute, Cincinnati, 1875; formerly member of the city council, mayor of Weston, and member of the board of education; aged 75; died, May 19, at Cleveland, of heart disease.

Frank Seymour Grim, Frenchtown, N. J.; Jefferson Medical College of Philadelphia, 1895; member of the Medical Society of New Jersey; mayor of Frenchtown; aged 56; died, May 21, at St. Frances' Hospital, Trenton, of septicemia.

Frank A. Long, Eureka, Mont.; College of Physicians and Surgeons, Medical Department Kansas City University, Kansas City, Kan., 1902; formerly state senator; aged 50; died suddenly, May 16, of heart disease.

Jesse Adolphus Amon, Lancaster, Ky.; Jefferson Medical College of Philadelphia, 1891; member of the Kentucky State Medical Association; aged 59; died, May 19, of injuries received in an automobile accident.

Raoul Rene Daniel Cline, Galveston, Texas; University of Texas Department of Medicine, Galveston, 1909; lecturer and professor of pharmacy at his alma mater; aged 56; died, May 20, of cerebral hemorrhage.

William Nairn, Alluwe, Okla.; St. Louis (Mo.) Medical College, 1872; member of the Oklahoma State Medical Association; aged 75; died, May 18, in a hospital at Oklahoma City, of cerebral hemorrhage.

Frank Leslie Sharrer, Benton Harbor, Mich.; University of Illinois College of Medicine, Chicago, 1906; member of the Michigan State Medical Society; aged 38; died suddenly, May 24, of heart disease.

Robert A. Wolski, Minneapolis; University of Minnesota Medical School, Minneapolis, 1900; aged 48; died, May 25, in San Diego, Calif., of a self-inflicted bullet wound while suffering from ill health.

Otto M. Haugan ✠ Fergus Falls, Minn.; Northwestern University Medical School, Chicago, 1902; president of the board of education; aged 56; died, May 25, at St. Luke's Hospital, of cerebral hemorrhage.

Edwin Flye Stetson, Damariscotta, Maine; Medical School of Harvard University, Boston, 1879; member of the Maine Medical Association; aged 71; died in May, at New York, of heart disease.

George Wilmot Farmer, Medical Lake, Wash.; Michigan College of Medicine, Detroit, 1884; physician to the State Custodial School; aged 64; died, May 24, of cerebral hemorrhage.

Richard M. Schmidt ✠ Hannibal, Mo.; St. Louis College of Physicians and Surgeons; aged 63; on the staff of St. Elizabeth's Hospital, where he died, May 22, following a long illness.

Charles F. Sauter, New Orleans; Medical Department of Tulane University of Louisiana, New Orleans, 1894; member of the Louisiana State Medical Society; aged 53; died, May 19.

Leo Rosen, New York; Long Island College Hospital, Brooklyn, 1913; member of the Medical Society of the State of New York; aged 43; died suddenly, May 27, of heart disease.

Archie Rosco Parrott, Miami, Fla.; Atlanta (Ga.) College of Physicians and Surgeons, 1908; member of the Florida Medical Association; aged 40; died suddenly, in May.

Edwin A. Hazlet, Allison, Iowa; Chicago (Ill.) Homeopathic Medical College, 1897; member of the Iowa State Medical Society; aged 60; died, May 17, of asthma.

Garrett David Leech, Muncie, Ind.; Bellevue Hospital Medical College, New York, 1875; aged 75; died, May 20, at the Home Hospital, of injuries received in a fall.

Thomas R. Edwards, Chanute, Kan.; College of Physicians and Surgeons, Medical Department Kansas City University, Kansas City, Kan., 1895; aged 57; died, May 18.

Floyd Douglas Drumheller ✠ Philadelphia; University of Pennsylvania School of Medicine, Philadelphia, 1904; aged 44; died suddenly, May 21, of heart disease.

William H. Cannon, Saratoga, Ark.; University of Tennessee College of Medicine, Memphis, 1890; aged 70; died, May 19, at a sanatorium in Texarkana.

Elijah Patterson Clemens, Dayton, Ohio; Howard University School of Medicine, Washington, D. C., 1894; aged 69; died, May 6, of heart disease.

Samuel B. Cheatham, Burkesville, Ky.; University of Tennessee College of Medicine, Memphis, 1883; aged 74; died, March 3, of pneumonia.

George Washington Davis, Duluth, Minn.; Detroit (Mich.) Medical College, 1879; formerly member of the city council; aged 71; died, May 20.

Ulysses S. Strouss ✠ Beaver, Pa.; Western Reserve University School of Medicine, Cleveland, 1873; aged 76; died, May 17, of pneumonia.

Joseph Vandeventer, Leesburg, Va.; University of Maryland School of Medicine, Baltimore, 1869; aged 77; died suddenly, in May.

Charles S. Kalb ✠ Aberdeen, Wash.; George Washington University Medical School, Washington, D. C., 1890; aged 57; died, May 17.

Edward D. Lumley, Williamsport, Pa.; University of Pennsylvania School of Medicine, Philadelphia, 1871; aged 84; died, May 18.

Edward Oglethorpe Cyphers, Belleville, N. J.; Hahnemann Medical College and Hospital of Philadelphia, 1893; aged 58; died, May 10.

George W. Fralick ✠ Maple City, Mich.; Michigan College of Medicine and Surgery, Detroit, 1893; aged 53; died, May 20, of uremia.

James Sherman Corbett, Cincinnati; Medical College of Ohio, Cincinnati, 1894; aged 54; died, May 21, following a long illness.

Robert Edward McClelland, Springfield, Ill.; Rush Medical College, Chicago, 1874; aged 73; died, May 19, of cerebral hemorrhage.

Avila R. L. Marsolais, Montreal, Que., Canada; Laval University Medical Faculty, Montreal, 1883; aged 65; died recently.

Thomas Renshaw Appleby, Springfield, Mo. (licensed, Missouri, 1883); aged 77; died, May 19, following a long illness.

John James Mooney ✠ Jersey City, N. J.; Bellevue Hospital Medical College, New York, 1896; aged 52; died in May.

Howard T. Wharff, Edwardsville, Ill. (licensed, Illinois, 1878); Civil War veteran; aged 77; died, May 22.

John R. Renaker, Los Angeles; Louisville (Ky.) Medical College, 1897; aged 52; died, March 19.

Eph Lockwood, Fort Gay, W. Va. (licensed, West Virginia, 1898); aged 56; died suddenly, May 15.

Alexander B. Hanna, Sardis, Tenn.; Chicago (Ill.) Medical College, 1865; aged 88; died, March 3.

Theodore C. Harris ✠ Tabor, Iowa (licensed, Iowa, 1886); aged 71; died, May 29.

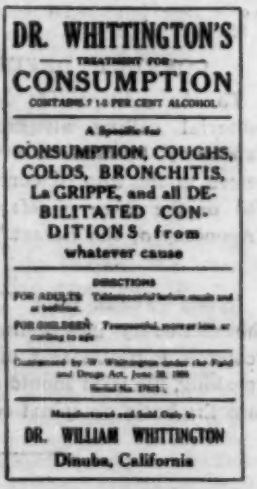
The Propaganda for Reform

IN THIS DEPARTMENT APPEAR REPORTS OF THE JOURNAL'S BUREAU OF INVESTIGATION, OF THE COUNCIL ON PHARMACY AND CHEMISTRY AND OF THE ASSOCIATION LABORATORY, TOGETHER WITH OTHER GENERAL MATERIAL OF AN INFORMATIVE NATURE

WHITTINGTON'S CONSUMPTION CURE A FRAUD

The Postal Authorities Close the Mails to Frederick Graham and the Tuberculosis Home Remedy Company

On May 28, 1924, a fraud order was issued against the Tuberculosis Home Remedy Company at Fresno and Dinuba, Calif., and Frederick Graham at Denver, Colo. The Tuberculosis Home Remedy Company is a California corporation and all of its stock is owned by the family of Dr. William Whittington who died October, 1923. For more than twenty years Whittington, who was a physician, exploited an alleged treatment for consumption. In December, 1915, the Whittington "cure" was the subject of a report in the Propaganda Department of THE JOURNAL and it was pointed out that Whittington himself was not only engaged in a disreputable piece of quackery but that he was a member of his local medical society. In 1916 the local society brought charges against him and he was expelled from that organization. Before publishing the article on the Whittington "cure" the stuff was analyzed in the Chemical Laboratory of the American Medical Association and was found to be a flavored syrup devoid of any potent ingredients except alcohol.


DR. WHITTINGTON'S
TREATMENT FOR
CONSUMPTION
CONTAINS 7 1/2 PER CENT ALCOHOL
A Specific for
CONSUMPTION, COUGHS, COLDS, BRONCHITIS, La GRIPPE, and all DEBILITATED CONDITIONS from whatever cause
DIRECTIONS
FOR ADULTS: Tablespoonful before meals and at bedtime.
FOR CHILDREN: Teaspoonful, more or less, according to age
Guaranteed by W. Whittington under the Food and Drugs Act, June 30, 1906. Serial No. 17615.
Manufactured and Sold Only by
DR. WILLIAM WHITTINGTON
Dinuba, California

Reduced facsimile of the label on "Whittington's Consumption Cure." After Whittington's death the stuff sold outside of the State of California was exploited by Frederick Graham of Denver.

In December, 1923, eight years after THE JOURNAL exposed the fraud, and two months after Whittington's death, the Tuberculosis Home Remedy Company and Frederick Graham were called on by the government to show cause why a fraud order should not be issued against the concern. In February, 1924, Frederick Graham, accompanied by an attorney, Thomas Hackney of Kansas City, Mo., appeared at the office of the Solicitor and the case was taken up in formal hearing. After the completion of the taking of testimony the case was orally argued and the attorney for the Whittington concern was given ten days in which to file a brief. This was received in due course and Judge Edgar M. Blessing, Solicitor for the Post Office Department, submitted a memorandum to the Postmaster-General detailing briefly the facts in the case and recommending the issuance of a fraud order.

FREDERICK GRAHAM, DISTRIBUTOR

It appears that after the death of Dr. William Whittington one Frederick Graham became the sole distributor of this fraudulent cure outside of the State of California. Graham advertised from Denver, Colo. Judge Blessing's memorandum, after describing briefly the previous history of the nostrum continues:

"The preparation is compounded in an outhouse near the rear of the family residence on a five-acre farm about two miles north of the town of Dinuba, California. The factory building, which is constructed of rough 12-inch pine lumber, is about 30 by 40 feet in dimension. The ground floor is divided in the center by a pine partition, one side being used as a manufacturing room and the other side as a packing and shipping room. The preparation is manufactured by a son of Dr. Whittington, who has no medical or pharmaceutical education, and the method of manufacture is somewhat crude.

"When the inspector asked Dr. Whittington for the formula he stated that he did not wish to submit his working formula, but he did allow the inspector to copy what purported to have been a chemical analysis made of his finished product, and stated that this analysis was correct as to his marketable product. This formula or analysis is as follows:

REVISED FORMULA

Sugar	15% by weight
Glycerine	10% by weight
Alcohol	10% by volume

Each fluid ounce represents the extract matter from

Pyrus malus folia (apple leaves)	110 grains
Gentian Root	30 grains
Rhamnus Purshiana (Cascara)	5 grains
Licorice Root	5 grains

"Analyses of samples of the preparation furnished by the promoters and purchased through the mails, by chemists in the Bureau of Chemistry, United States Department of Agriculture, indicate the absence of gentian and the presence of only traces of cascara and licorice. The evidence shows that cascara is not present in the preparation in sufficient amounts to produce any laxative effects. The principal ingredient in this preparation is apple leaves. Mr. Whittington was unable to explain how his father happened to hit upon apple leaves as a 'cure' for tuberculosis."

In some of his advertising Graham led prospective victims to believe that the preparation was a very expensive one to make. He sold the stuff at $25.00 for four bottles. The government reported that its investigations showed that the ingredients of each bottle were estimated to cost less than 18 cents. Graham testified that he was selling from 70 to 80 treatments each month at $25.00 each; young Whittington, the son of the originator of the fraud, testified that from 20 to 30 "treatments" were sold direct from Dinuba, Calif. In the circulars that he sent out Graham made such claims as:

"This treatment is a medicine taken internally. The medicine is absorbed by the blood, and being taken into the blood acts directly on the lungs or affected parts."

"When the medicine gets to doing its work through the blood, and mucous tissues, the deposit in the lungs or affected parts is loosened, relieving them of the congestion and inflammation. First the lungs or affected parts must be cleaned of the pus or poison. The healing process will then start. The medicine enriching the blood, strengthening the tissues, continuing the cleansing and healing process, eventually leaving the lungs or affected parts in a permanently, healed, healthy condition."

"It is . . . guaranteed under the Food and Drugs Act."

"It has been on the market in a commercial way only a few months and already its fame is spreading."

The Solicitor's memorandum, in referring to some of the claims made by Graham states:

"Mr. Graham, who is not a physician, pharmacist, or chemist, and who had no knowledge as to what his medicine contained, claims that the above quoted statements as to the manner in which the medicine 'acts directly on the lungs or affected parts,' 'loosens' the 'deposit in the lungs,' clears them of 'all pus and poison,' relieves them of 'all congestion and inflammation,' 'destroys the tubercular germ,' 'heals any cavities that may exist' and 'builds up the tissues' were based on what Dr. Whittington had told him. The evidence shows that all of these statements are false and fraudulent, and I so find.

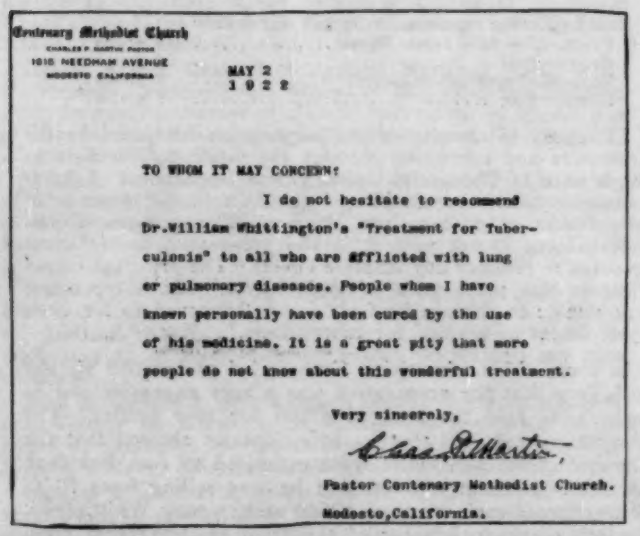
"The medical testimony offered by the Government was in no way controverted by the respondents. No experts testified in their behalf. Mr. Graham stated that 'The medical profession, as far as I can find out, in all cases condemn the medicine and tell the patients not to use it.' Their entire defense was based on affidavits and letters from persons who have used the preparation. In fact this business is largely built on the statements of laymen who claim marvelous cures of tuberculosis alleged to have been effected solely by its use. . . ."

"The unreliable character of testimonials of laymen as to the efficacy of medicines sold through the mails has been again and again demonstrated in cases which have come before this office. It has been the experience of this office that no matter how worthless the preparation the promoters are always able to produce a large number of testimonials from well-meaning laymen reciting alleged wonderful cures.

In one case [The "Professor" Samuels' swindle.—ED.] a preparation consisting of a little sugar and salt in ordinary hydrant water, a few drops of which were to be put in the eye of the patient, was exploited as a cure for tuberculosis largely by means of testimonials of users.

"The experts who testified for the Government in the instant case stated that tuberculosis sufferers as a class are the most prolific testimonial givers.

"I find that the representation that 'This is the first successful treatment for tuberculosis that has been found' was made by Mr. Graham in reckless disregard of the truth. . . ."



Centenary Methodist Church
CHARLES P. MARTIN, PASTOR
1010 NEEDHAM AVENUE
MODESTO, CALIFORNIA

MAY 2
1922

TO WHOM IT MAY CONCERN:

I do not hesitate to recommend Dr. William Whittington's "Treatment for Tuberculosis" to all who are afflicted with lung or pulmonary diseases. People whom I have known personally have been cured by the use of his medicine. It is a great pity that more people do not know about this wonderful treatment.

Very sincerely,

Chas. Martin,

Pastor Centenary Methodist Church.
Modesto, California.

Testimonials were, as usual, the chief advertising asset of this as all other fraudulent consumption cures. Here is a miniature facsimile of a testimonial used in exploiting the cure. It comes from a man who should have known better.

"Mr. Graham attempted to explain the statement that the medicine 'has been on the market in a commercial way only a few months' by stating that while he knew the medicine had been sold by Dr. Whittington for a period of 20 or 25 years and had, on occasion, been advertised by him, that he considered his efforts the first 'to commercialize' the preparation."

Judge Blessing, in summing up the case in his memorandum to the Postmaster General, wrote: . . . . . .

"I find that this is a scheme for obtaining money through the mails by means of false and fraudulent pretenses, representations and promises. I, therefore, recommend that a fraud order be issued against the Tuberculosis Home Remedy Company of California, Inc., and the Tuberculosis Home Remedy Company at Fresno and Dinuba, California, and Frederick Graham, at Denver, Colorado."

As previously stated, the fraud order was issued May 28, 1924.

Correspondence

GUARDING AGAINST VIOLATION OF THE HARRISON ACT

To the Editor:—Probably there is no legislation of recent times of a purely public health nature from which the public should derive as much benefit, as from the Harrison Narcotic Law. We wish to call attention to a practice of many detail men who call on the physician, and who frequently request a prescription blank, as evidence of their visit.

Without the slightest reflection on any detail men, we wish to condemn the practice of distributing prescription blanks in lieu of business cards, on account of the ease with which forgeries can be perpetrated. Many times the physician is asked for one of his cards by people who wish to have his name, address, and telephone numbers for future reference, and the physician gives them a blank prescription blank, which may fall into the hands of some one who may be an expert on writing narcotic prescriptions, and the forger may not be a professional man at all.

Recently, we were told by a detail man, that, after visiting the profession on a certain day, he went to his hotel, and while making his daily report to his house, had on the table before him several cards and prescription blanks which he had gathered that day. The bellboy, in bringing him ice water, caught sight of the prescription blanks, and immediately began negotiations for the purchase of the blanks. This detail man stated that this bellboy admitted to him that he could get five dollars apiece for the desired blanks.

From the foregoing incident we may safely conclude that at least some prescription blanks are filled in for narcotics, the physician's signature and narcotic number, which is usually printed on his prescription blank, being forged.

R. W. BLACKMAR, M.D.,
B. F. WOOLSEY, M.D.,
Jacksonville, Fla.

CORRECT DEFINITION OF "APOPLEXY"

To the Editor:—On March 11, 1922, you published an editorial calling attention to the misuse of the word "apoplexy" by medical writers, noting the fact that the word refers to the loss of consciousness and paralysis. On page 763 of the issue of May 31, 1924, you have a report on "Apoplexy of the Breast."

H. G. W.

[NOTE.—Thank you! The point is well taken. However, the dictionary now defines "apoplexy," by common usage, "copious extravasation of blood into any organ." Strictly speaking, the term should be used to refer only to hemorrhage into the brain or spinal cord.—ED.]

Queries and Minor Notes

ANONYMOUS COMMUNICATIONS and queries on postal cards will not be noticed. Every letter must contain the writer's name and address, but these will be omitted, on request.

CRUMBLING TEETH

To the Editor:—Please give me some helpful suggestions in the following described case, if you can. An Indian woman, aged 29, has crumbling or rapidly decaying teeth. The dentist put her teeth in good condition, and in the course of six months the fillings all fell out. This was not because of poor dentistry, because it was repeated twice and the patient was referred back to me by the dentist. I have known the patient since she was a child, and I am naturally interested and anxious to do something for her. She had pneumonia in childhood and again after influenza a few years ago, also measles about five years ago, but no other illnesses. She had one child several years ago which was healthy, but died after a few months. Her general health appears good, and I can make out no disease. She works as a domestic and her diet consists of the food commonly eaten. She stated that she did not like milk, but on recommendation is now drinking a pint a day on the principle of its being a dental tissue builder.

I. M. E.

ANSWER.—It is difficult to answer this question since there are so many factors involved in decay of the teeth. In the developmental stage of the teeth, nutrition plays an important part in determining their quality. It is also well known that the diseases of childhood affect the quality of the developing teeth. The enamel of the human tooth, when completed, is a finished product, and there is no anatomic or physiologic means known by which it may receive nutrient material, after it is completely formed. If the completed enamel is fed lime salts, then it must be by some chemical process unknown at this time. It is well known that though a diet may contain

ample calcium salts, indicated by large deposits of lime on the teeth in the form of salivary calculus, still the teeth decay rapidly.

That foods do exert a marked influence on tooth decay is indicated in the lower animals when their feeding has been changed from the normal. The teeth of the highly domesticated dog, and of the horse, fed on food requiring little or no mastication, decay while those of animals living under normal conditions do not.

In many instances, when the Scandinavian immigrant comes to this country his teeth soon decay rapidly. This can most easily be traced to the change of diet, especially to the greater use of the carbohydrates, to which he had not previously been accustomed. Overprepared foods require little mastication; therefore, when eaten, more or less of the starchy elements remain about the teeth. Such people rarely use the tooth brush, and the starchy particles remain about the teeth and are changed into sugar by the action of the ptyalin of the saliva. Fermentation takes place, and decay of the enamel results.

The rapid decay of the patient's teeth is probably due to a change from the normal food of the Indian child to the more starchy prepared foods, requiring little or no mastication, and, in addition, to the use of an excessive amount of sweets. If the saliva and oral mucus are examined, they will probably be found to be ropy, owing to the excess of the sweets.

The only suggestion that may be offered is that the patient eat coarser foods which require mastication, and that she thoroughly brush her teeth and gums after each meal. Citrus fruits are thought by some to be helpful in such cases.

EGGS AND TUBERCULOSIS

To the Editor:—A question has arisen whether or not eggs from tuberculous chickens may transmit the disease to a person if the eggs are taken raw? Please give some information through Queries and Minor Notes.

B. A. P.

ANSWER.—There have been recognized four distinct types of tubercle bacilli: the human type; the bovine; the avian, and the piscine or ichthyc. The avian type, like the fish variety, has never been found in man. It is found in certain diseases of fowls, but the rabbit is almost the only mammal that shows any great susceptibility to infection by this type of tubercle bacillus. The pig is of exceptional interest in this respect; according to Cobbett, it is the only one of the larger domesticated animals that has been clearly shown to be susceptible to infection by all three types of tubercle bacilli; its susceptibility is low, however, to the avian and human types, and in all cases caused by these organisms that have been found, the disease has been strictly limited to the submaxillary gland. Since fowls are not susceptible to infection by either the human or the bovine type of tubercle bacillus, and man is not susceptible to infection by the avian type, there seems to be no reason to worry about contracting tuberculosis by eating eggs raw. An interesting discussion of the rôle of the types of tubercle bacilli in human and animal tuberculosis appears in the *Journal of State Medicine* **30**:160 (April) 1922.

VISCEROSENSORY PHENOMENA

To the Editor:—An article by Dr. E. M. Livingston on studies of viscerosensory phenomena outlines these areas for acute biliary disease and acute nephrolithiasis. He mentions a sensory triangle for appendicitis, previously mentioned. I failed to see the article mentioned. Can you inform me of the outline of this triangular area, or refer me to the number of THE JOURNAL in which it appeared?

SEWARD L. LANDAUER, M.D., Danville, Ill.

ANSWER.—The skin signs enumerated by Livingston in his previous article (The Skin Signs or Viscerosensory Phenomena in Acute Appendicitis, *Annals of Surgery* **7**:83 [July] 1923) are localized within a triangle, the upper side of which is a line from the umbilicus to the highest point on the right iliac crest, the lower side a line from the highest point on the right iliac crest to the right pubic spine, the third side a line from the right pubic spine to the umbilicus. Livingston's earlier studies included tests in this area for all forms of cutaneous sensibility, but he finally eliminated all carefully graded stimuli and all tests employing a light stimulus, and narrowed his technic to one form of test; namely, a vigorous twisting pinch of sufficient intensity to produce discomfort on normal skin. Such a test becomes exceedingly painful, he says, when applied with the same intensity on an involved zone.

Medical Education, Registration and Hospital Service

COMING EXAMINATIONS

ALABAMA: Montgomery, July 8. Chairman, Dr. S. W. Welch, Montgomery.

CALIFORNIA: San Francisco, July 7-10. Sec., Dr. Charles B. Pinkham, 908 Forum Bldg., Sacramento.

COLORADO: Denver, July 1. Sec., Dr. David A. Strickler, 612 Empire Bldg., Denver.

CONNECTICUT: Hartford, July 8-9. Sec., Regular Board, Dr. Robert L. Rowley, 79 Elm St., Hartford.

CONNECTICUT: New Haven, July 8. Sec., Homeopathic Board, Dr. Edwin C. N. Hall, 82 Grand Ave., New Haven; Sec., Eclectic Board, Dr. James E. Hair, 730 State St., New Haven.

DELAWARE: Wilmington, June 17. Sec., Medical Council, Dr. H. W. Briggs, 1026 Jackson St., Wilmington. Sec., Homeo. Board, Dr. H. W. Howell, 824 Washington St., Wilmington.

DISTRICT OF COLUMBIA: Washington, July 8. Sec., Dr. Edgar P. Copeland, Apt. 104, Stoneleigh Court, Washington.

FLORIDA: Ocala, June 16-17. Sec., Dr. W. M. Rowlett, Citizens Bank Building, Tampa.

HAWAII: Honolulu, July 14-17. Sec., Dr. G. C. Milnor, 401 Beretania St., Honolulu.

ILLINOIS: Chicago, June 24-27. Supt. of Regis., Mr. V. C. Michels, Springfield.

INDIANA: Indianapolis, July 8-10. Sec., Dr. William T. Gott, No. 333 State House, Indianapolis.

KANSAS: Topeka, June 17. Sec., Dr. A. S. Ross, Sabetha.

MAINE: Augusta, July 15-16. Sec., Dr. Adam P. Leighton, Jr., 192 State St., Portland.

MARYLAND: Baltimore, June 17-20. Sec., Reg. Bd., Dr. Henry M. Fitzhugh, 1211 Cathedral St., Baltimore; Sec., Homeo. Bd., Dr. E. H. Wilsey, Chesapeake City.

MICHIGAN: Detroit, June 16-18. Sec., Dr. B. D. Harison, 707 Stroh Bldg., Detroit.

MISSISSIPPI: Jackson, June 17-18. Sec., Dr. W. S. Leathers, Jackson.

MISSOURI: St. Louis, June 16-19. Sec., Dr. Cortez F. Enloe, Jefferson City.

NATIONAL BOARD OF MEDICAL EXAMINERS: Written examinations in Class A Medical Schools. Parts I and II, June 19-21. Sec., Dr. John S. Rodman, 1310 Medical Arts Bldg., Philadelphia.

NEW JERSEY: Trenton, June 17-18. Sec., Dr. Alexander MacAlister, State House, Trenton.

NEW MEXICO: Albuquerque, July 14. Sec., Dr. W. T. Joyner, Roswell.

NORTH CAROLINA: Raleigh, June 23. Sec., Dr. Kemp P. B. Bonner, Raleigh.

NORTH DAKOTA: Grand Forks, July 1-4. Sec., Dr. G. M. Williamson, Grand Forks.

OKLAHOMA: Oklahoma City, July 8-9. Sec., Dr. J. M. Byrum, Shawnee.

OREGON: Portland, July 1-3. Sec., Dr. Urling C. Coe, Stevens Bldg., Portland.

PENNSYLVANIA: Philadelphia and Pittsburgh, July 8-12. Sec., Dr. George Becht, Harrisburg.

RHODE ISLAND: Providence, July 4-5. Sec., Dr. B. U. Richards, State House, Providence.

SOUTH CAROLINA: Columbia, June 24. Sec., Dr. A. Earle Boozer, 505 Saluda Ave., Columbia.

SOUTH DAKOTA: Sioux Falls, July 15. Director, Division of Medical Licensure, Dr. H. R. Kenaston, Bonesteel.

TEXAS: Austin, June 17-19. Sec., Dr. T. J. Crowe, 918-19 Mercantile Bank Building, Dallas.

VERMONT: Burlington, June 25-27. Sec., Dr. W. Scott Nay, Underhill.

VIRGINIA: Richmond, June 17-20. Sec., Dr. J. W. Preston, 720 Anchor Building, Roanoke.

WASHINGTON: Olympia, July 8. Sec., Mr. Wm. Melville, Olympia.

WISCONSIN: Milwaukee, June 24-26. Sec., Dr. J. M. Dodd, 220 E. Second Street, Ashland.

Illinois January Examination

Mr. V. C. Michels, superintendent of registration, Illinois Department of Registration and Education, reports the written and practical examination held at Chicago, Jan. 8-10, 1924. The examination covered 10 subjects and included 100 questions. An average of 75 per cent. was required to pass. Of the 69 candidates examined, 43, including 3 drugless practitioners, passed, and 26, including 1 undergraduate and 8 drugless practitioners, failed. Fifteen candidates were licensed by reciprocity. The following colleges were represented:

PASSED College	Grad. Year	Cent. Per
American College of Medicine and Surgery	(1906)	80.8
Chicago Medical School	(1923, 4) 75.4, 76.5, 77.4, 78	
General Medical College	(1923)	78.8
Loyola University	(1924, 2) 78.3, 84.2	
Northwestern University	(1898) 81.9, (1922) 81.5, (1924, 2) 75.8, 82.4	
Rush Medical College	(1922) 83.4, (1924)	80
University of Illinois	(1924)	89.8
Tufts College Medical School	(1919)	75
Missouri Medical College	(1898)	83.7
St. Louis University	(1913) 83.3, (1923, 2) 83.9, 86.3	
Eclectic Medical College, Cincinnati	(1896)	77.4
Meharry Medical College	(1893) 76.6, (1902) 79.4, (1919)	77.4
Vanderbilt University	(1915)	81.6
University of Manitoba	(1916) 81.9, (1922)	84.9

McGill University, Quebec	(1919)	84
University of Vienna, Austria	(1909)*	82.7
University of Berlin, Germany	(1900)*	82.6
University of Bonn, Germany	(1922)*	75.8
University of Kiel, Germany	(1904)*	83.5
University of Wurzburg, Germany	(1922)*	81.5
National University, Athens, Greece	(1914)	76.3
University of Budapest, Hungary	(1909)* 78.2, (1915)*	80.5
University of Jurjev, Russia	(1917)*	75.7
University of Kharkov, Russia	(1915)*	77.7
University of St. Vladimira, Kief, Russia	(1900)*	79.4
University of Geneva, Switzerland	(1911)	75.5
Drugless practitioners		75, 76, 77

College	FAILED	Year Grad.	Number Failed
Howard University		(1900)	1
Chicago Medical School		(1922), (1923, 5)	6
Reliance Medical College		(1911)	1
St. Louis College of Physicians and Surgeons		(1918)	1
Meharry Medical College		(1922), (1923, 2)	3
Western University, Ontario		(1918)	1
National University, Athens, Greece		(1917)*	1
Ekaterinoslav State Medical Academy, Russia		(1921)*	1
University of Jurjev, Russia		(1917)*	1
University of Zurich, Switzerland		(1911.*	1
Undergraduate			1
Drugless Practitioners			8

College	LICENSED BY RECIPROCITY	Year Grad.	Reciprocity with
Howard University		(1906)	Maryland
Bennett Medical College		(1914)	Iowa
Northwestern University		(1918)	N. Dakota
University of Illinois		(1916)	Iowa
University of Louisville		(1921)	Kentucky
Baltimore Medical College		(1909)	Maryland
Johns Hopkins University		(1920)	Maryland
University of Maryland		(1910)	Maryland
Barnes Medical College		(1911)	Missouri
St. Louis University		(1923, 2)	Missouri
Woman's Medical College of Pennsylvania		(1910)	Maryland
Meharry Med. College, Nashville	(1907) Kentucky,	(1919)	Arkansas
University of Toronto		(1914)	Minnesota

* Graduation not verified.

Book Notices

METHODS IN MEDICINE. The Manual of the Medical Service of George Dock, M.D., Sc.D. By George R. Herrmann, M.D., Ph.D., Instructor in Medicine, University of Michigan. Cloth. Price, $6.50. Pp. 521, with illustrations. St. Louis: C. V. Mosby Company, 1924.

There is in most hospitals a notebook handed down from one intern to another which contains favorite nursing methods, laboratory technic, prescriptions and standing orders. With the increased complexity of hospital work it is easy to miss essential information, to permit valuable specimens to disappear, and to overlook important details. Dr. Dock long ago had prepared a typewritten manual for interns to use as a reference book in his service. The war showed the great value of some easily accessible written guide, since only a few of the older members of the house staff remained. That guide, now issued in book form, includes all the details of work with patients, their relatives and the family physician; the preparation of histories, reports and letters; the making of clinical and laboratory examinations, and the relation of the house staff to the rest of the hospital. The chapter of history taking shows standard typical charts. The chapters on laboratory methods cover more than 200 pages, a great deal of which the intern has learned, theoretically at least, in the medical school. Dr. Dock undoubtedly has found that recent graduates require a manual to make a hemoglobin estimation, a routine urinalysis and a blood count. This book will be useful to all the persons connected with the daily work of hospitals.

GLOSARIO DE SEMIOLOGIA. Por los Doctores Hector Seiglie, Profesor Auxiliar de Patología General, y Jose D. Freyre, Médico del hospital Nacional. Con la Colaboracion de Francisco J. Menendez, Jose Vivo y Paz, Jose Trenols, y Alberto Maury. Prefacio por el Dr. Federico Grande Rossi, Profesor Titular por oposición de Patología General. Second edition. Leather. Pp. 322, with 44 illustrations. Habana: Libreria "Cervantes," 1923.

In their school days, the authors were apparently impressed with the significance of pathognomonic signs. The result is this book, a fairly long, if not complete, collection of medical signs and tests, arranged in alphabetical order. In the appendix the material is classified under different headings, such as palpation, auscultation, percussion, laboratory and roentgenology, and partially according to organs and diseases. For ready reference purposes, the listing of any number of signs, as many as twenty, under one man's name, must unavoidably entail confusion. Some patriotic partiality has also been shown in crediting a number of Cubans with signs—in one case eleven—probably unknown outside their own immediate circle. The number of laboratory tests is pitifully small, and, strange to say, the most popular among them all, the Wassermann reaction, is not given. The spelling is careless, and the whole series of *facies* (over seventy) is misplaced under *fascies*.

DIAGNOSIS AND TREATMENT OF ACUTE ABDOMINAL DISEASES. Including Abdominal Injuries and the Complications of External Hernia. By Joseph E. Adams, M.B., M.S., F.R.C.S., Surgeon to St. Thomas' Hospital. Second edition. Cloth. Price, $6. Pp. 538, with 47 illustrations. New York: William Wood & Company, 1923.

The first edition of this work, which appeared in 1913, was based on the experience of the authors (Adams and Cassidy) in St. Thomas' Hospital. A revision of the work was undertaken by Adams, who presents this edition. The original chapter headings have been retained, but much new matter has been added, particularly in the first chapter, which has been enlarged by a description of the surgical anatomy of the abdomen. Acute abdominal diseases, as a rule, are conditions that demand early operative intervention, and in this country it is thought that such cases are best cared for in hospitals; but the author seems to think that, "in the wealthier class of patients, removal to nursing homes (hospitals) for operation is not desirable if it can be avoided, and as a general rule a patient does better in his own home than elsewhere." In the postoperative treatment of acute peritonitis, the author places considerable importance on the use of vaccines, both stock and autogenous. The weak point in his argument, however, is the statement that the vaccines should not be used in less than forty-eight hours after operation. The fate of most patients who have been operated on for acute peritonitis is sealed during the first forty-eight hours, and if at the end of that time the operation has not arrested the infection, the patient is dead or dying or on the road to recovery; thus, in either case, the value of the vaccines is more than problematic. The use of the terms "subphrenic pyopneumothorax" for the gas-containing abscess and "subphrenic empyema" for the nongaseous form of subphrenic abscess are badly chosen, as anything below the diaphragm cannot be considered anatomically to be within the thorax, and empyema is too well identified with pus in the pleural cavity. A final chapter on diseases that may simulate acute abdominal lesions is interesting as showing the various medical affections that may be mistaken for acute abdominal conditions. The author has had a large experience, and many helpful practical suggestions will be found in the work.

INVESTIGATIONS OF THE THERAPEUTIC RESEARCH COMMITTEE OF THE COUNCIL ON PHARMACY AND CHEMISTRY OF THE AMERICAN MEDICAL ASSOCIATION. Annual Report, Volume XII, 1923.

The Council on Pharmacy and Chemistry of the American Medical Association has been, for some years, promoting financially the investigation of urgent problems in therapeutics. These researches are carried out by investigators who receive grants carrying a small fund to cover some of the expenses incurred in connection with the work. As the reports of work done under these grants are published during the year in the various scientific journals, reprints are collected and, at the end of each year, bound into a single volume. In the past, researches carried out under these therapeutic research grants have shed valuable light on the action of the salicylates, caffein, iodin preparations, digitalis, organic phosphorus compounds, opium alkaloids and hexamethylenamin. The present volume includes additional material on the action of digitalis and the standardization of its action on the human heart; a study of silver compounds for their antiseptic efficiency and silver ion content; a series of extensive studies on the biologic reactions of arsphenamin, and a study of the action of calcium in experimental cocain poisoning. For those who are interested in these subjects particularly or those who wish to be well informed as to the efforts made

to advance rational therapy through exact experimentation, this collection of reprints offers a convenient and authentic summary of the work done under the auspices of the Therapeutic Research Committee of the Council on Pharmacy and Chemistry that has been published during the past year.

Medicolegal

Contracts for Specified Fees and "No Cure, No Pay"

(Guild v. Whitlow (Ark.), 257 S. W. R. 383)

The Supreme Court of Arkansas says that the plaintiff brought this action to recover $1,000 alleged to be the balance due him on a contract with the defendant for operating on the latter's sister. The defendant testified that the plaintiff told him that an operation would cure his sister; that he paid the plaintiff $500 and promised to pay him $1,000 more if the result of the operation was such as the plaintiff said that it would be. What the operation was is not stated by the court; but it says that the patient died in two or three days, as the result of the operation. Several physicians and surgeons testified that $200 or $250 would have been a reasonable fee for an operation of the kind. The jury returned a verdict in favor of the defendant, on his cross-complaint, for $250, but the judgment therefor is reversed, and the cause remanded for a new trial, on account of an erroneous instruction given to the jury, concerning fees.

It is well settled, the supreme court says, that a physician or surgeon may make an express contract whereby he is to receive a stipulated sum for his services, or he may make a special agreement to cure his patient by an operation, or, in case he fails to do so, to receive no pay. Special contracts with physicians or surgeons on the principle of "no cure, no pay," are generally held valid. They are conditional contracts, and there seems to be no reason why a physician may not enter into a contract whereby his right to compensation may be dependent on his curing the patient entirely by treatment or by operation on him. In this connection it may also be stated that, under the testimony of the plaintiff, the agreement of the defendant was an original undertaking, and not a collateral one within the statute of frauds requireing promises to answer for the debts of others to be evidenced in writing.

There was error, however, in an instruction which told the jury that, although it might find that the defendant was liable on the contract sued on, still, if he agreed to pay $1,500 for the operation on his sister in reliance on the representations of the plaintiff that this was a reasonable charge for the operation, and that, if the defendant believed this to be true, and did not know whether the charge was reasonable or not, and the jury should further find that $1,500 was an excessive fee, then the defendant would be liable for a reasonable fee only, and would be entitled to recover any excess paid, as shown by the proof. It was error to narrow the inquiry by instructing the jury that the right of the plaintiff to recover under the contract depended on whether he represented to the defendant that $1,500 was a reasonable fee, and the defendant, in ignorance of what was a reasonable fee, believed the representations to be true. This tended to concentrate the mind of the jury on a single question, and to place too narrow a limit on the plaintiff's right to recover.

When the contract was made, no confidential relation existed between the parties, and a contract for the amount of the fee to be charged by a surgeon is valid and unobjectionable, and will be enforced unless there are special circumstances from which it appears that it was induced by fraud or some improper or undue advantage over the patient or the person employing the surgeon. There may be cases in which, from the nature of the transaction and the situation of the parties, fraud and imposition may be inferred from the representations of the surgeon that his fee was reasonable. Such a case would be one in which there was a necessity for an immediate operation and no other surgeon was available. Such a case might also be presented in which a party was induced to go to the sanatorium of another and the party was persuaded that an immediate operation was necessary to save his life. It may be stated that, in any case of emergency, when the patient or the person making a contract for the patient was laboring under such great excitment or distress of mind that an unconscionable advantage has been taken of him, then the contract will be set aside on the ground of fraud and a recovery for services will be allowed only on a quantum meruit (their reasonable value). Here none of these elements existed. If the defendant made the contract as testified to by the plaintiff, his only ground for setting it aside on the ground of fraud was that it was unreasonable. This was not sufficient. It could not be said that the contract was procured by fraud because the plaintiff charged more than other physicians and surgeons would charge for a similar operation in the same city.

Systolic Blood Pressure Deception Test

(Frye v. United States (D. C.), 293 Fed. R. 1013)

The Court of Appeals of the District of Columbia, in affirming a judgment of conviction of defendant Frye of murder in the second degree, says that only a single assignment of error was presented for the court's consideration on this appeal. In the course of the trial, counsel for the defendant offered an expert witness to testify to the result of a deception test made on the defendant. The test was described as the systolic blood pressure deception test. It was asserted that blood pressure is influenced by change in the emotions of the witness, and that the systolic blood pressure rises are brought about by nervous impulses sent to the sympathetic branch of the autonomic nervous system. Scientific experiments, it was contended, have demonstrated that fear, rage and pain always produce a rise of systolic blood pressure, and that deception or falsehood, concealment of facts, or guilt of crime, accompanied by fear of detection when the person is under examination, raises the systolic blood pressure in a curve, which corresponds exactly to the struggle going on in the subject's mind, between fear and attempted control of that fear, as the examination touches the vital points in respect of which he is attempting to deceive the examiner. In other words, the theory seems to be that truth is spontaneous, and comes without conscious effort, while the utterance of a falsehood requires a conscious effort, which is reflected in the blood pressure. The rise thus produced is easily detected and distinguished from the rise produced by mere fear of the examination itself. In the former instance, the pressure rises higher than in the latter, and is more pronounced as the examination proceeds, while in the latter case, if the subject is telling the truth, the pressure registers highest at the beginning of the examination, and gradually diminishes as the examination proceeds.

Prior to the trial, the defendant was subjected to this deception test, and counsel offered the scientist who conducted the test as an expert witness to testify to the results obtained. The offer was objected to by counsel for the government, and the court sustained the objection. Counsel for the defendant then offered to have the proffered witness conduct a test in the presence of the jury. This also was denied. Counsel for the defendant, in their able presentation of the novel question involved, stated in their brief that no cases directly in point had been found.

Just when a scientific principle or discovery crosses the line between the experimental and demonstrable stages is difficult to define. Somewhere in this twilight zone the evidential force of the principle must be recognized, and while courts will go a long way in admitting expert testimoney deduced from a well recognized principle or discovery, the thing from which the deduction is made must be sufficiently established to have gained general acceptance in the particular field in which it belongs. This court thinks that the systolic blood pressure deception test has not yet gained such standing and scientific recognition among physiologic and psychologic authorities as would justify the courts in admitting expert testimony deduced from the discovery, development and experiments thus far made.

Society Proceedings

COMING MEETINGS

American Proctologic Society, New York, June 23-25. Dr. Joseph F. Montague, 540 Park Avenue, New York, Secretary.
Maine Medical Association, Portland, June 25-27. Dr. B. L. Bryant, 265 Hammond Street, Bangor, Secretary.
New Hampshire Medical Society, Manchester, June 24-25. Dr. D. E. Sullivan, 7 N. State Street, Concord, Secretary.
Pacific Northwest Medical Association, Vancouver, B. C., June 26-28. Dr. F. Epplen, 422 Paulsen Building, Spokane, Wash., Secretary.
Utah State Medical Association, Logan, June 19-21. Dr. William L. Rich, Boston Building, Salt Lake City, Secretary.
Wyoming State Medical Society, Cody, June 17-19. Dr. Earl Whedon, Sheridan, Secretary.

AMERICAN SOCIETY FOR CLINICAL INVESTIGATION

Annual Meeting, held in Atlantic City, N. J., May 5, 1924

The President, DR. C. P. HOWARD, Iowa City, in the Chair

Toxic Substance in Blood and Urine of Patients with Scarlet Fever

DRS. JAMES D. TRASK, JR., and FRANCIS G. BLAKE, New Haven, Conn.: Recent studies by Dochez, Mair, and G. F. and Gladys H. Dick have indicated that scarlet fever may be regarded as a local infection of the throat by a particular type of *Streptococcus hemolyticus* that is capable of producing a soluble toxin. It is supposed that this toxin is absorbed from the throat and causes the general manifestations of the disease. It is furthermore supposed that immunity to scarlet fever, whether existing in a normal person or acquired by an attack of the disease, is antitoxic in nature and that the presence of immunity can be determined in a person by finding out whether or not his serum blanches the rash in a patient with scarlet fever, or whether or not he reacts to an injection of the toxin found in filtrates of scarlatinal streptococcus cultures. A series of observations on the blood of patients acutely ill with scarlet fever has shown that a toxic substance can be demonstrated in the serum by means of intracutaneous injections of the serum in persons who have not had scarlet fever and whose serums fail to blanch the rash in scarlet fever. The reaction caused by this substance consists of a bright red local erythema, varying from 20 to 70 mm. in diameter, and of from one to four days' duration. The severer reactions are moderately indurated and tender, and are followed by pigmentation and desquamation. Control injections in persons whose serums blanch the rash in scarlet fever cause no reaction. The toxic substance is not neutralized by mixture with a human serum that gives a negative blanching test, but is readily neutralized by a human serum that gives a positive blanching test. It is not neutralized by normal horse serum, but is completely neutralized by Dochez's scarlatinal antistreptococcic serum. In a limited number of observations on the urine of patients with scarlet fever, a similar toxic substance has been found in two out of five cases studied. Since the toxic substance described appears to resemble the toxic substance found in the filtrates of scarlatinal hemolytic streptococcus culture by G. F. and G. H. Dick, and since it is neutralized not only by a blanching serum but also by Dochez's scarlatinal antistreptococcic horse serum, the experiments reported support the conception that scarlet fever is a local infection of the throat by a particular type of *Streptococcus hemolyticus* capable of producing a toxin, which is absorbed and is the cause of the general manifestations of the disease.

The Leukocyte Curve as an Index of the Infection in Rheumatic Fever

DRS. C. PHILIP MILLER, JR., RALPH H. BOOTS and HOMER F. SWIFT, New York: This study, which has extended over a period of two years, was undertaken to determine whether the leukocyte curve based on counts made at frequent intervals over a long period could be used as an index of the severity and persistence of the infection in rheumatic fever. This information is especially desirable, because many of the manifestations of the disease are modified or masked by antirheumatic drugs. When the leukocyte curve fell to normal and remained there, the patients went on to recovery without relapse, whether treated by antirheumatic medication or not. When the curve remained above from 12,000 to 14,000, or when after the institution of antirheumatic treatment an initial fall was followed by a rise, withdrawal of the drug was always followed by a definite clinical relapse. In the patients with predominantly visceral involvement, the persistence of leukocystosis, even though of low grade, usually ran parallel to the other signs of persisting infection, and a fall of the curve to normal was usually an indication that the patient was recovering.

Experimental Studies with Pneumococcus Antibody Solution

DRS. RUSSELL L. CECIL and HORACE S. BALDWIN, New York: This antibody affects temperature, blood culture and protective bodies when injected into monkeys with experimental pneumococcus pneumonia. These effects were studied in the various types of pneumococcus infection. The antibody exerts a protective power against the various strains of pneumococci isolated from patients with pneumonia.

Further Studies on the Significance of Streptococci in the Etiology of Diseases of the Nervous System

DR. E. C. ROSENOW, Rochester, Minn.: The etiologic relationship of the streptococci to diseases of the nervous system is proved by the experimental production of characteristic symptoms and lesions and by specific immunologic reactions. The specific streptococcus forms poisons that have characteristic effects on animals. Sections of brains of control animals prove that changes observed are not spontaneous in origin.

Thermodynamic Relations of the Oxygen and Base Combining Properties of Blood

DRS. W. C. STADIE and KIRBY A. MARTIN, New Haven, Conn.: The value of the heat of ionization of carbonic acid (H_2CO_3) in whole blood thus calculated is practically the same as in aqueous solutions. The heat of ionization of hemoglobin acid per equivalent of (H^+) was calculated thermodynamically by means of the van't Hoff isochore from the shift of the BHb-p_H line of whole blood from 38° and 15°. The value obtained, 10,000 calories, is in agreement with the directly determined heats of ionization of other proteins. The validity of the van't Hoff isochore for hemoglobin-acid in whole blood is thus established. The heats of ionization of all the acid radicals of hemoglobin are practically the same. This follows because BHb-p_H lines for whole blood are straight lines at both 15 and 38 C. and parallel. The molecular buffer of hemoglobin is theoretically independent of temperature. The magnitude of the heat of ionization of hemoglobin as an acid indicates that a small change in temperature produces a large change in the strength of hemoglobin as an acid. The temperature effect on the base and oxygen binding properties of blood is of significance in relation to fever. The theoretical predictions are found to be consistent with the experimental data. The correction factor for arterial p_H of patients with fever when determined from the carbon dioxid absorption curve at 38 C. is -0.022 p_H per 1 degree C.. There is a relation between the heat of absorption of oxygen by blood at constant p_H and constant carbon dioxid tension; the heat at constant carbon dioxid tension is 3,000 calories greater than at constant p_H.

Studies of the Acid-Base Mechanism in Epilepsy

DR. H. RAWLE GEVELIN, E. J. BIGWOOD and MARJORIE A. WHEATLEY, New York: Observations were made on the acid excretion in the urine of epileptics before, during and after starvation. The effects of high fat diets and of feeding certain acids were also studied. Comparison was made with the acid excretion in normal fasting subjects. The hydrogen ion concentration of the blood of epileptics was compared with that of normal persons.

The Alleged Rôle of Lactic Acid in Arthritis and Rheumatoid Conditions

DR. RALPH PEMBERTON, C. Y. CROUTER and F. A. CAJORI, Philadelphia: The theory that arthritis is caused by an excessive accumulation of lactic acid in the body, first

advanced by Richardson in 1856, later by Foster in 1874, and recently revived, chiefly on clinical grounds, by Wilde, has been tested by quantitative determination of the lactic acid present in the blood, urine, sweat, and joint fluid of patients with chronic arthritis and of normal persons. We have used Clausen's method. In no case have we observed abnormal blood figures for lactic acid (13 to 26 mg. per hundred cubic centimeters) or a urinary excretion of more than a few milligrams per hour (from 4 to 21 mg.). Joint fluid approaches blood in lactic acid concentration. Sweat contains larger quantities (from 0.1 to 0.4 per cent.), the amount present apparently depending on the concentration of sweat, which increases as sweating continues during exposure to heat. About 50 per cent. of the total organic acid in sweat, as measured, consists of lactic acid. The sweat of patients with arthritis, however, contains no larger quantities of lactic acid than the sweat of healthy persons. As Clausen's method is not specific for lactic acid, we have satisfied ourselves of the presence of this acid in sweat by its isolation as the zinc salt. This has been identified as the salt of *d* lactic acid by its optical rotation and water of crystallization. Our sweat samples have been collected in a rubber bag surrounding the patient's arm during an electric "bake." These results give no support to the view that lactic acid is a factor in rheumatoid conditions, at least so far as to change the composition of the blood, urine or sweat with respect to it.

Facial Characteristics of Gallbladder, Ulcer, Tuberculosis, Pernicious Anemia and Nephritic Hypertension Patients

DRS. GEORGE DRAPER and HALBERT L. DUNN, New York: This paper presents one phase of the studies on human constitution being carried on at the Presbyterian Hospital. Patients are divided into disease groups for comparison of anthropologic measurements. The facial measurements of 161 men are analyzed in this report. Seventeen of these had gallbladder disease; twenty-one, pernicious anemia; eighteen, nephritic hypertension; thirty, peptic ulcer, and seventy-five, tuberculosis. The results with women are practically identical. What constitutes a face? The usual conception is a vertical oval limited superiorly by the hair line. The anthropologic conception is a horizontal oval. limited superiorly by a horizontal line through the nasion. Then measurements were used in an analysis of this facial region; nasion prosthion, facial height, facial diameter, bigonial diameter, interpupillary space, infradental menton, nasal height, nasal breadth, palpebral breadth and palpebral length. What does the clinician see in the face of his patient? His eye catches a combination of three elements. 1. The effect of distribution of soft parts and the variation in expression. 2. The effect of actual size. For example the male acromegalic face is much larger than the male pernicious anemia face, but proportionately the two are the same. 3. The effect of relative size. Differences in relative size are demonstrated by indexes and averages. Three indexes were used:

$$\text{Facial index} = \frac{\text{facial height}}{\text{facial diameter}} \times 100$$

$$\text{Upper facial index} = \frac{\text{nasion-prosthion}}{\text{facial diameter}} \times 100$$

$$\text{Eye zone index} = \frac{\text{interpupillary space}}{\text{nasion-prosthion}} \times 100$$

These three indexes were charted as accumulative percentage frequency curves. A table, based on the arithmetical averages of the data, portrays the relation of the facial diameter, bigonial diameter and interpupillary space in percentage of the facial height and the interpupillary space in percentage of the facial diameter. The principal relative differences are: Gallbladder and pernicious anemia males have wide faces and wide upper faces. Pernicious anemia males have wider lower faces than do gallbladder males, and also far larger eye zones. Nephritis-hypertension persons, with tuberculosis males as a close second, have thin faces and thinner upper faces. The nephritis-hypertension group, however, have square eye zones, while the tuberculosis type have narrow ones. Ulcer patients are intermediate in all respects. The nephritis-hypertension males appear to be particularly wide eyed because of their narrow faces, while the gallbladder males have the narrowest set eyes in respect to the width of their faces. To summarize: There are differences, both actual and relative, in the bony skeleton of the face and the eye set in different diseases. The clinician can observe differences between the faces of his patients by analyzing separately the effect of soft parts and expression, the effect of actual size, and the effect of relative differences in the skull form and the eye placement.

Results of Iodin Administration in Exophthalmic Goiter

DRS. PAUL STARR and J. H. MEANS, Boston: Patients with exophthalmic goiter have been given by mouth 15 drops of compound solution of iodin daily. Determinations of their basal metabolic rate, pulse and weight were made daily, or at intervals of a few days, for weeks and months. In many cases a great drop in metabolic rate began soon after iodin was started. Cases with metabolic rates of plus 50 or 60 fell within a few days to plus 10 or 20; others fell to zero or below. This amounted to complete remission of the disease, and is similar to that following subtotal thyroidectomy; the pulse became slow; appetite became normal; nervousness and tremor diminished, and weight increased. We feel that iodin produced this crisis, since with a remission in treatment prompt recrudescence of the original disease occurred. Most of our patients were operated on or received roentgen-ray treatment after this drop in metabolic rate, but some that were given iodin for several months had, nevertheless, a gradual recurrence. The primary drop in the outpatients required about a month, in contrast to the immediate drop in the patients at rest in the hospital. After another month the basal metabolic rate increased again, reading its original toxic level in two more months. The patients were then successfully operated on. Continuance of the iodin probably did not cause the return of the disease, since in those cases in which it was stopped during the recurrence a still greater rise occurred. Certain patients receiving compound solution of iodin and roentgen ray simultaneously were at normal limits at the end of five months. Another group of cases, including several of exophthalmic goiter and of toxic adenoma, were apparently unaffected by the administration of iodin. We conclude that large doses of compound solution of iodin by mouth produce abrupt remission in many cases of exophthalmic goiter. The rate of drop is as rapid in these cases as that following subtotal thyroidectomy. Iodin is the effective agent, as its withdrawal is followed by abrupt recurrence of the disease. Iodin alone, as now given, has not been shown to be sufficient to supress the disease permanently. Iodin and roentgen-ray treatment have been successfully combined in the treatment of some cases. In some cases, iodin has no apparent effect.

Studies on Metabolism of Obesity

DR. SOLOMON STROUSE, C. C. WANG and M. DYE, Chicago: Experimental data and a review of reported cases prove that obesity occurs in persons who do not overeat or underexercise. The basal metabolism of a large series of obese persons indicates that there are no consistent variations in basal metabolism. The special dynamic action of carbohydrate, protein and mixed meals indicates the presence of a deficiency in the fat-burning capacity of the obese.

Estimation of Total Strength as a Means for Measuring the Results of Treatment in Diabetes

DRS. REGINALD FITZ and WILLIAM P. MURPHY, Boston: The present object of treatment in diabetes is to supply patients with food which can be metabolized without glycosuria, acidosis or hyperglycemia, and which yields sufficient energy to conserve weight and strength. Therefore it may be desirable to measure accurately not only the loss or gain in body weight that occurs during the course of the disease but also the loss or gain in strength. We have estimated the total strength in a series of diabetic cases by the spring-balance method of Lovett and Martin. We believe that the method is simple, accurate and inexpensive, and that it yields trustworthy results. In normal persons, the total strength remains relatively constant for long periods of time. In diabetic patients, the total strength is almost always below

normal before treatment is instituted, but can be made to approach normal by adequate dietetic management. Strength is increased by the calories of the diet rather than by the carbohydrate or protein fractions, and is diminished by glycosuria, acidosis, infection or prolonged undernutrition.

Studies on the Nature and Significance of the Action of Trypsin on Insulin

DRS. ALBERT A. EPSTEIN and NATHAN E. ROSENTHAL, New York: A highly purified trypsin exhibits two functions: a proteolytic, and a milk-coagulating or rennet function. These two functions cannot be dissociated. Serum inhibits the proteolytic action, but does not interfere with the rennet action. Working with such a preparation, the effects of trypsin on insulin were studied in vitro and in vivo, and the following results were obtained: 1. The reaction between trypsin and insulin is immediate. When trypsin is added to insulin and the mixture promptly injected into suitable animals, no physiologic insulin effects are observed. This reaction is favored by low hydrogen ion concentration, and is hindered by high hydrogen ion concentration. After the reaction between insulin and trypsin is completed, recovery or rehabilitation of the insulin can be effected by increasing the hydrogen ion content. 2. Insulin mixed with blood or serum exhibits its usual physiologic effects in animals. 3. In mixtures with serum and trypsin, insulin fails to produce its physiologic effects, thus showing that trypsin combines with it even in the presence of blood or serum. 4. This reaction between trypsin and insulin appears to take place in vivo as well as in vitro. Injections, into suitable animals, of large doses of insulin, followed by injections of trypsin (within a limited time), fail to exhibit any insulin effects. The foregoing observations indicate that the neutralizing action of trypsin on insulin takes place within the body and is not of a proteolytic character. 5. Injection of trypsin into the pancreatic artery or branches or into the substance of the pancreas, produces hyperglycemia and glycosuria of variable duration, according to the amount of trypsin injected. Because of the structural proximity of the zymogenic and insular cells in the pancreas, the phenomena observed may be of significance in throwing light on the etiology of diabetes.

Energy Transformation at Rest and at Work with High and Low Respiratory Quotients

DRS. WALTER M. BOOTHBY and CLIFFORD J. BARBORKA, Rochester, Minn.: In a twenty-eight day metabolism experiment on a normal subject, the food intake was known and daily determinations were made of the respiratory metabolism at rest and at work, together with analyses of urine and blood. High fat and fasting periods were preceded and followed by normal and high carbohydrate periods. The non-protein respiratory quotients at rest and at work did not vary greatly from each other, although the quotients at rest were slightly higher than the quotients at work when above 0.86, and the quotients at rest were lower than the quotients at work when below 0.80. The curves, therefore, of the respiratory quotients at rest and at work crossed when the diet was changed from a high carbohydrate to a high fat diet, in agreement with the findings of Krogh and Lindhardt. Another experiment from this laboratory on a diabetic subject thoroughly accustomed to a high fat diet did not, however, show this phenomenon. From the beginning of the experiment up to the last day of the fast, the total number of calories required for muscular work was estimated and the glucose available from the diet or glycogen reserves was insufficient to account for the work performed, if it is assumed with Hill and Meyerhof that the reconversion of the lactic acid into its precursor is accomplished solely at the expense of the combustion of a fraction of that lactic acid. The data indicate that the heat needed for reconversion under conditions of fasting comes from fat and are consistent with the assumption that, after molecular rearrangement, the hydrogen and carbon atoms of the fat may form a part of the molecule of the reconstructed precursor of lactic acid. If such a rearrangement occurs, no evidence of it would be expected in the diabetic organism, as presumably the reaction would not pass through the stage of free glucose and is consistent, therefore, with the conception that total diabetes is a condition in which the tissues cannot utilize glucose.

Diabetes Innocens

DR. WALTER R. CAMPBELL, Toronto: A group of cases of glycosuria differed from diabetes of the usual type in the accidental discovery of glycosuria; the lack of symptoms other than glycosuria; the long duration of glycosuria without development of other symptoms of diabetes mellitus in spite of the lack of dietetic control; normal fasting and postprandial blood sugar levels with glycosuria; blood sugar tolerance tests approximating those of mild diabetes; increase in glycosuria with increased carbohydrate intake but not commensurate with the increase in food, and high respiratory quotients showing carbohydrate utilization and other features incompatible with the diagnosis of mild diabetes mellitus.

Total Inorganic Calcium and Phosphorus in the Blood of Diabetic Patients Showing a Peculiar Symptom Complex

DRS. BERTNARD SMITH and HOWARD F. WEST, Los Angeles: A considerable proportion of patients with diabetes develop a rather definite group of symptoms, which become manifest after they have reached a state of apparently adequate nutrition. These symptoms may reach a point of distressing severity. Prominent in this symptom complex are attacks of weakness (at times approaching collapse), sweating, coldness, nervousness, paresthesias and stiffness of muscles; with the finding of vascular hypotension, rapid pulse, pallor, cold moist skin and poor muscle tone. In occasional instances are seen attacks suggesting a mild tetany. This complex occurs most frequently among patients who had become radically undernourished or who previously have had vigorous treatment for some acute diabetic emergency. It occurs among patients who have been treated without insulin, but has been encountered more frequently among those who have had this assistance. True hypoglycemic reactions have been excluded by blood and urine analyses. The finding of a low blood calcium in a few of the patients with more marked symptoms, with a certain amount of relief from calcium feeding, has led to a study of the total inorganic calcium and phosphorus of the blood. As a rule, blood was taken just before the noon meal, which was usually not at the time of acute symptoms. In twenty-five determinations on twenty patients in good physical condition and not showing these symptoms, total calcium of below 10 mg. per hundred cubic centimeters was found in but two, and these had previously experienced similar symptoms, but were vigorous and doing manual work at the time of examination. The average for the series was 11.45 mg. In twenty-nine determinations on twenty-three patients showing symptoms similar to the foregoing, only seven showed calcium of 10 mg. or above. The average calcium of this series was 9.01 mg., with 6.4 mg. as the extreme low finding. Total inorganic phosphorus showed practically the same distribution in the two series, averaging 3.54 mg. and 3.57 mg., respectively. While the evidence is not sufficient to warrant the assumption that calcium disturbance is the sole or primary factor in this symptom complex, the findings seem of definite significance and are offered as a partial study of the condition.

The Nephropathic Effect of Some Amino-Acids

DRS. L. H. NEWBURGH and PHIL L. MARSH, Ann Arbor, Mich.: One of us has recently pointed out that the renal injury, resulting from high protein diets, might at least in part be caused by the passage of unusually large amounts of some amino-acids through the kidney. In order to test this hypothesis, amino-acids have been injected intravenously into rabbits and dogs. Glycocoll, alanin, leucin, glutamic acid, arginin and phenylalanin in doses up to 5 gm. per kilogram have caused no demonstrable injury. On the other hand, histidin, tyrosin and cystin, in single injections of less than 1 gm. per kilogram, regularly cause albuminuria and cylindruria, even in dogs; and sections of the kidneys show acute parenchymatous injury. The results with tryptophan, aspartic acid and lysin are still in doubt. Serin and prolin have thus far not been tested.

(To be continued)

Current Medical Literature

AMERICAN

The Association library lends periodicals to Fellows of the Association and to individual subscribers to THE JOURNAL for a period of three days. No foreign journals are available prior to 1920, nor domestic prior to 1923. Requests should be accompanied by stamps to cover postage (6 cents if one and 12 cents if two periodicals are requested).

Titles marked with an asterisk (*) are abstracted below.

American Journal of Medical Sciences, Philadelphia

167: 625-780 (May) 1924

*Electro-Ionic Medication. G. T. Pack, F. P. Underhill, J. Epstein and I. N. Kugelmass, New Haven, Conn.—p. 625.

*Pancreatic Function. Enzymic Concentrations of Duodenal Contents in Health and Disease. C. W. McClure, C. M. Jones, A. S. Wetmore and L. Reynolds, Boston.—p. 649.

*Occurrence of Regular Ventricular Rhythm with Rate over Fifty in Cases of Auricular Fibrillation. W. Dock and S. A. Levine, Boston. —p. 664.

*Right Diaphragmatic Hernia of Short Esophagus Type. S. Fineman and H. M. Conner, Rochester, Minn.—p. 672.

*Hypophyseobasal Area in Relation to Pathogenesis and Treatment of Diabetes Insipidus and Polyuria. C. E. de M. Sajous, Philadelphia. —p. 679.

*Cerebrospinal Fluid in Lethargic Encephalitis. H. E. Foster, Rochester, N. Y., and J. R. Cockrell, Boston.—p. 696.

Possible Relationship Between Current of Injury and Leukocyte in Inflammation. H. A. Abramson, New York.—p. 702.

Management of Patients Presenting Essential Hypertension. E. S. du Bray, Berkeley, Calif.—p. 710.

*Leukemia: Atypical Case. B. Gutmann, New Brunswick, N. J.—p. 718.

*Relationship of Goiter to Mental Disorders. H. L. Foss and J. A. Jackson, Danville, Pa.—p. 724.

*Ultraviolet Absorption Spectra of Cerebrospinal Fluid. T. Shionoya, Tokio, Japan.—p. 735.

Electro-Ionic Medication.—Pack and his associates decided that much of the accumulated data on the so-called electrolytic absorption of drugs had not been collected under control conditions so satisfactory as to warrant sweeping laudations on this method of administration of drugs. Consequently, a series of laboratory experiments were performed, some of which are original; others are repetitions under the standardization of controls. The experiments cited are in agreement, as a rule, with the work of Turrell in England and Clark in America. Both are agreed that "ionic medication" is indicated in local conditions. Although deep ionic medication is impossible (excluding circulatory transmission), beneficial results do accrue from the ionizing action of the current alone. Halogens, nonmetals and acids, being anions, are introduced by anaphoresis. The ingress of some is demonstrably accelerated by the electric current, while in others there could not be demonstrated any acceleration of introduction by the electric current. The theory of detoxication of poisonous ions by electrolysis is proved to be fallacious. After the administration of iodids, per os or subcutaneously, nascent iodin was liberated within the tissues by the insertion of a positive pole on an electrode. This principle may possibly be utilized in the treatment of certain infections. However, equally beneficial effects seem to be obtainable by the application of the electric current, per se, as a result of the drastic tissue changes which are produced.

Pancreatic Function.—The main purpose of this study was to devise methods for demonstrating the degree of activity of the external secretory function of the pancreas, and to apply those methods to the investigation of this function in various pathologic conditions involving the gastro-intestinal tract, including the liver and pancreas. Normal enzymic concentrations of duodenal contents have been established by McClure et al. as a means of estimating pancreatic function. Abnormalities in enzymic concentrations were found only in the presence of some lesion involving the pancreas, either primarily or secondarily. The findings in normal persons indicate that the essential factors in stimulating the secretion of pancreatic juice are the products of digestion rather than the acidity of the gastric chyme. The external secretory function of the pancreas was much depressed below the normal in chronic pancreatitis. Obstructive lesions caused great diminution, while acute necrosis often caused dissociation of the concentration of the enzymes. In obstructive jaundice estimation of enzymic concentration of duodenal contents is of aid in localizing the site of the lesion, and in the differential diagnosis between its benign and malignant character.

Regular Ventricular Rhythm in Auricular Fibrillation.—As Dock and Levine have seen it, regular and fairly rapid ventricular rhythm occurs in auricular fibrillation only after full doses of digitalis. It is always transient, lasting for hours or days. It may disappear and return later at a different rate, or the rate may vary from day to day. It seems to occur most often in badly damaged hearts. Fifty per cent. (six) of their patients had severe mitral or aortic lesions, rheumatic in origin; one had syphilitic aortitis and others had myocardial failure without valve disease. Five died within one year of the time of observation. During this time there were seen 614 cases of auricular fibrillation, nine of which had periods of regular ventricular rhythm, with rates under 48. There were during the same time sixteen cases of complete heart block with regularly beating auricles. In twelve of the latter cases of complete heart block, with no digitalis, the average rate was 35.8 beats per minute, while in five such cases treated with full doses of digitalis the average rate was 42.6. The maximum rate in the former group was 45 and in the latter, 60. In one case, included in both series, the rate was 34 without digitalis; six months later, following cardiac failure and continued use of digitalis, the ventricular rate was 55; the auricular rate had fallen from 115 to 90 beats per minute. This suggests that digitalis accelerates the ventricular pacemaker when there is auriculoventricular dissociation.

Diaphragmatic Hernia.—The incidence of diaphragmatic hernia at the Mayo clinic is one in 23,000 cases. In the case reported by Fineman and Conner the hernia was on the right side. It was of the short esophagus type. The intragastric tension was the reverse of what is usually found in a normal person. In such hernias, on account of the congenitally shortened esophagus, complete reduction of the stomach from the chest into the abdominal cavity is impossible. Therefore, for the sake of rational management, every patient with diaphragmatic hernia involving the stomach should have a careful roentgenologic examination with the specific object in mind of determining, so far as possible, the length of the esophagus.

Hypophyseobasal Area in Relation to Diabetes.—Sajous concludes that the beneficial effects of posterior pituitary preparations are accounted for, not by a supposed secretion of hormone in these products, since the actual existence of such a secretion as a physiologic entity has never been demonstrated and is controverted by many facts, but by the recognized pharmacologic property of these preparations of causing constriction of the arterioles. This constriction counteracts in the kidneys the dilatation of these vessels, which dilatation is the cause of diabetes insipidus and polyuria so far as their relationship with the hypophyseorenal nerve path is concerned.

Cerebrospinal Fluid in Lethargic Encephalitis.—An amount of sugar exceeding 0.06 per cent. was obtained by Foster and Cockrell in 91 per cent. of the fluids studied, using the Folin-Wu method, hence quantitative sugar estimations are valuable in differentiating lethargic encephalitis from tuberculous meningitis and as an aid in other conditions presenting similar symptoms. The amount of sugar present in the cerebrospinal fluid is not pathognomonic of lethargic encephalitis, but is of recognized utility in making the diagnosis.

Atypical Leukemia.—A case is reported by Gutmann that presented many of the clinical signs and symptoms of an acute leukemia with a high percentage of myelocytes in the beginning of the illness, and with only a slight increase in the total number of leukocytes. This was followed by (*a*) gradual diminution in the number of myelocytes and slight relative lymphocytosis, with a return to approximately normal of the total number of leukocytes; (*b*) relatively very slight disturbance of erythrocytes and hemoglobin; (*c*) occurrence of what might be termed a crisis, following which there was slow, but steady, improvement. A marked psychosis was considered to be a consequence of the disease. A complete symptomatic recovery occurred, both mental and physical.

Goiter and Mental Disorders.—Fifty-nine cases of goiter were found by Foss and Jackson in a total hospital population of 1,647. There is, apparently, no definite relationship between goiter and insanity and nothing to indicate a thyroidectomy in the treatment of the usual insane patient suffering from complicating goiter, unless for the relief of mechanical pressure. Operation may be indicated if there be accompanying evidences of true hyperthyroidism, but this latter condition is most rare. Neither hyperthyroidism nor hypothyroidism occurs, except very rarely, among the adult goiter patients of the Pennsylvania hospitals for the insane, the greatest number of goiters being of the so-called multiple adenomatous or nodular forms and unaccompanied by systemic disturbances.

Absorption Spectra of Cerebrospinal Fluid. — Shionoya studied the absorption spectra of the cerebrospinal fluids taken from patients suffering from several kinds of diseases of the cerebrospinal system, and plotted the absorption curves to compare them with the curve of normal fluid. The results, in the main, proved this test to be one for the presence or absence of protein, but as for the nature of the protein, this study gives no definite information.

Colorado Medicine, Denver

21: 121-152 (May) 1924

Organotherapy in Gynecology from Viewpoint of General Practitioner. R. T. Frank, Denver.—p. 123.
Duodenal Pathology. C. E. Tennant, Denver.—p. 129.
Celiac Disease. J. Savage, Denver.—p. 136.
Treatment of Toxemia in Intestinal Obstruction. T. G. Orr and R. L. Haden, Kansas City, Kan.—p. 140.
Creation of State Board of Education Through Cooperation of Medical Profession with Educational Council. D. A. Strickler, Denver.—p. 143.

Journal of Experimental Medicine, New York

39: 625-775 (May) 1924

*Immunizing Strain of Virus of Poliomyelitis. S. Flexner and H. L. Amoss, New York.—p. 625.
*Anaphylaxis to Azoproteins. K. Landsteiner, New York.—p. 631.
*Effect of Roentgen Ray on Skin of Vitally Stained White Mice. G. T. Cori, Buffalo.—p. 639.
*Penetration of Normal Mucous Membranes of Rabbit by Treponema Pallidum; Influence of This Mode of Infection on Course of Disease. W. H. Brown and L. Pearce, New York.—p. 645.
Fate of Antigen (Protein) in Animal Immunized Against It. E. L. Opie, St. Louis.—p. 659.
*Repiratory Mechanism in Lobar Pneumonia. Study of Lung Volume in Relation to Clinical Course of Disease. C. A. L. Binger and G. R. Brow, New York.—p. 677.
*Relation of Blood Pressure to Amount of Renal Tissue. H. C. Anderson, Minneapolis.—p. 707.
Surface Tension of Serum. VIII. Further Evidence Indicating Existence of Superficial Polarized Layer of Molecules at Certain Dilutions. P. L. du Noüy, New York.—p. 717.
Influence of Resistance on Character of Disease in Experimental Respiratory Infection. F. S. Jones, Princeton, N. J.—p. 725.
Oxidation and Reduction by Pneumococcus. IV. Oxidation of Hemotoxin in Sterile Extracts of Pneumococcus. O. T. Avery and J. M. Neill, New York.—p. 745.
Id. V. Destruction of Oxyhemoglobin by Sterile Extracts of Pneumococcus. J. M. Neill and O. T. Avery, New York.—p. 757.

Immunizing Strain of Poliomyelitis Virus. — Flexner and Amoss describe a strain of the virus of poliomyelitis derived from a rapidly fatal human case, which exhibits mild degrees of infective power and marked degrees of protective effect for the monkey. While *Macacus rhesus* displays perceptible differences in susceptibility to the attenuated virus, nearly all individuals respond to the inoculation and none succumbs to the infection induced. As compared with previously described examples of experimental poliomyelitis, the modified disease described is distinguished by its relatively benign nature and its tendency to end in recovery rather than in death as with earlier observed instances.

Anaphylaxis to Azoproteins.—The experiments reported on by Landsteiner show that it is possible to make animals hypersensitive against a simple chemical group like para-arsanilic acid, and from this point of view connection would seem to be established with the phenomena of drug allergy in human beings.

Effect of Roentgen Ray on Stained Mice.—Cori found that the time interval between radiation and the occurrence of epilation is shorter in mice injected with trypan blue than in normal animals. A roentgen-ray unit defined as that causing total spontaneous epilation on the skin of the mouse is suggested. It corresponds to from four to five human erythema doses.

Spirochetes Penetrate Normal Mucous Membrane.—Experiments were carried out by Brown and Pearce with three strains of *Spirochaeta pallida* to determine whether infection could be produced by applying an emulsion, rich in spirochetes, to normal mucous membranes of rabbits, and whether an infection produced in this manner differed in any respect from one produced by other methods of inoculation. It was found that a simple instillation of a spirochete emulsion into the conjunctival sac or the sheath was all that was necessary to obtain an infection. Still, the infection produced in this manner differed from that produced by intracutaneous or testicular inoculations in that it tended to pursue a mild or asymptomatic course and frequently without the development of a characteristic chancre. It is pointed out that these experiments may have a bearing on problems pertaining to obscure and atypical cases of human syphilis as well as the more immediate question of the infectivity of *Spirochaeta pallida*.

Respiratory Mechanism in Lobar Pneumonia.—The functional residual air (defined as the lung volume at the end of normal expiration) was determined by Binger and Brow in a series of normal persons and in ten patients with lobar pneumonia at different stages of the disease. A constant relationship was found to exist between the persistence and disappearance of symptoms (fever, accelerated heart rate, rapid and shallow breathing, cyanosis) and fluctuations of the functional residual air. When these symptoms persisted the functional residual air decreased; during their disappearance the volume of the functional residual air rose toward normal. The rise was detected soon after the crisis. A close parallelism has been observed also between alterations in radiographic shadow, physical signs, and the volume of the functional residual air.

Relation of Blood Pressure to Amount of Renal Tissue.—In chronic glomerulonephritis, the gradual rise of blood pressure, which is usually observed as the disease progresses, has been attributed by some observers to progressive atrophy of renal tissue. The problem was attacked experimentally by Anderson. The removal or destruction of about 70 per cent. of the kidney tissue in rabbits did not produce hypertension even when prolonged renal insufficiency resulted.

Nebraska State Medical Journal, Norfolk

9: 157-200 (May) 1924

*Gunshot Wound of Chest: Valvular Thoracotomy. K. Connell, Omaha.—p. 157.
Cleft Palate and Cleft Lip; Cases. W. L. Shearer, Omaha.—p. 160.
Frontal Sinus Suppuration. Tic Douloureux. H. B. Lemere, Omaha.—p. 164.
Osteotomy in Correction of Gross Deformity. H. W. Orr, Lincoln.—p. 165.
Carcinoma of Antrum. Sarcoma of Middle Ear. W. F. Callfas and D. T. Quigley, Omaha.—p. 167.
Concussion of Brain with Carbon Monoxid Poisoning. J. S. Welch, Lincoln.—p. 170.
Diplopia Relieved by Operation. J. M. Banister, Omaha.—p. 171.
Sodium Urate and Cholesterin Nodules on Tendons. A. F. Jonas, Omaha.—p. 173.
Goiter. D. L. Davis, Omaha.—p. 174.
Case of Tubal Pregnancy with Rupture of Uterus. H. A. Johnson, Tekamah.—p. 176.
Case of Kümmel's Disease. J. E. M. Thomson, Lincoln.—p. 178.
Traction Fracture of Lesser Trochanter. J. F. Langdon, Omaha.—p. 181.
Three Cases of Osteomyelitis. A. C. Stokes, Omaha.—p. 182.
Corneal Disturbance. J. M. Patton, Omaha.—p. 183.
Appendicobiliary Syndrome. M. Emmert, Omaha.—p. 184.
Cholelithiasis During Symptomless Stage. A. J. Brown, Omaha.—p. 185.
Cases of Orbital Infection, Foreign Body in Bronchus, and Actinomycosis. J. B. Potts, Omaha.—p. 187.

Valvular Thoracotomy for Chest Wound.—Connell reports a case of gunshot wound of the thorax, complicated by hemopneumothorax and retained infective foreign body. The missile entered the left chest anteriorly, ranged downward and backward through the lung and lodged beneath the skin posteriorly, from whence it was removed. The man was brought to the hospital with the left lung in complete collapse, his heart displaced to the right and his pleural cavity filled with

blood and air. There were no pressure symptoms demanding immediate relief. No symptoms arose demanding drainage until the tenth day. Connell performed open thoracotomy with rib resection, but immediately converted the drainage tract into a valve that functioned outward. This operation of valvular thoracotomy consists chiefly in raising upward a semicircular skin flap, beginning in the tenth interspace in the midscapular line, then resecting the ninth rib, opening the thorax without loss of exudate, inserting a strip of celluloid, cut from roentgen-ray film, 1½ inches wide by 6 inches long, so as to project into the pleural cavity. The skin flap is sutured back in place, except at the dependent exit of the flat celluloid strip. This yields valvular drainage. The soft parts themselves form an effective valve, opening easily and widely to expiratory pressure and closing on the negative or inspiratory phase of respiration. The excellent drainage and negative pull on the lung thus achieved is exaggerated by hourly use of the blow bottle, blowing against a pressure of 2 feet of water. The empyema cavity is cleansed daily by flushing with surgical solution of chlorinated soda. The celluloid leaf is not disturbed until its final removal on the twelfth day.

Southern Medical Journal, Birmingham, Ala.

17: 305-374 (May) 1924

Relationship of Intestinal Flora to Chronic Intestinal Stasis. C. C. Bass, New Orleans.—p. 305.
*Treatment of Lamblia Intestinalis Infections. J. E. Knighton, Shreveport, La.—p. 309.
Hypertension. R. Wilson, Jr., Charleston, S. C.—p. 313.
*Parasitism of Fat. K. H. Beall, Ft. Worth, Texas.—p. 319.
Focal Infection: Is It a Practical Theory? W. T. Wootton, Hot Springs, Ark.—p. 323.
*Purpura of Bizarre Character in Twin Infants. J. B. Stone, Richmond, Va.—p. 329.
Control of Communicable Diseases in Rural Sections. H. S. Mustard, Kingwood, W. Va.—p. 332.
Findings in Five Hundred Cases Presented for Ureteral Catheterization. R. Thompson and L. C. Todd, Charlotte, N. C.—p. 338.
Relaxed Vaginal Outlet Following Childbirth. L. E. Burch, Nashville, Tenn.—p. 342.
Diseases of Thyroid Gland. E. V. Mastin, St. Louis.—p. 345.
Bone Tumors. F. G. Hodgson, Atlanta, Ga.—p. 351.
After-Treatment of Joint Injuries. J. N. Baker, Montgomery, Ala.—p. 353.
Fracture Splint. R. Patterson, Knoxville, Tenn.—p. 357.
Portable Stretcher Table for Application of Plaster Jackets. N. Mills, New York.—p. 358.
Fatalities in Obstetrics. J. G. Dempsey, New Orleans.—p. 359.
Choroiditis. H. Woods and L. Hamman, Baltimore.—p. 362.
Systemic Treatment in Pathologic Conditions of Eye, Ear, Nose and Throat. J. A. Stucky, Lexington.—p. 366.

Treatment of Lamblia Intestinalis Infection.—Knighton found that two or three intravenous treatments of arsphenamin, at seven day intervals, will rid the patient of infection by this organism.

Parasitism of Fat.—Beall regards fat—overweight—not as an asset but as a debit. It shortens life, predisposes to disease, and from every point of view is to be feared.

Purpura in Twins.—At first the history given in Stone's cases suggested scurvy. However, the roentgen-ray pictures taken on admission and just before discharge showed no signs of scurvy. The gums were unaffected except for a very transient slight swelling in the case of one child after he had been under treatment for more than a week. The condition did not show the rapid improvement to be expected on institution of antiscurvy diet. Bleeding times were two minutes in each child, and blood coagulation times were four minutes in one child and five minutes in the other. Cultures from the nasopharynx were negative for diphtheria and showed gram-positive cocci as the predominating organisms. Blood cultures were negative, and blood Wassermann reactions of the patients and their parents were negative. The urinalyses were negative. Blood chemistry findings were normal except for slightly increased calcium and slightly decreased phosphorus. The temperatures fluctuated widely during the first two weeks between 104.5 F. and normal. The day after admission each child developed a tremendous edema of the scalp and face with coalescence of the ecchymoses on the cheeks to form irregular splotches several inches in diameter. The eyes were almost completely closed by the swelling of the lids and about the orbits. This gradually subsided in about a week. On account of an apparent hemorrhagic tendency, intramuscular injections of whole blood were given soon after admission. Several days later each was given a transfusion of 100 c.c. of blood by the syringe method by way of the longitudinal sinus. With improvement of a nose and ear infection, the edema and purpuric lesions disappeared and there was rapid improvement in the general condition. After twenty-one and twenty-three days, respectively, in the hospital the two infants were discharged well.

Texas State Journal of Medicine, Ft. Worth

20: 1-64 (May) 1924

Remedy for Fee Splitting: Let Specialist Do Less, Family Physician More. J. O. McReynolds, Dallas.—p. 5.
Ophthalmology in Transition. R. H. T. Mann, Texarkana.—p. 7.
Value of Blind Spot Determinations. E. L. Goar and W. Ralston, Houston.—p. 8.
Reflex Symptoms from Eye-Strain. E. L. Howard, Ft. Worth.—p. 13.
Strabismus. J. W. Ward, Greenville.—p. 16.
Surgical Correction of Strabismus. H. M. Boerner, Austin.—p. 17.
Optical Nystagmus. R. W. Moore, Ft. Worth.—p. 22.
Case of Congenital, Unilateral and Intermittent Exophthalmus and Enophthalmus. F. H. Newton, Dallas.—p. 25.
Intracapsular Cataract Extraction: Report of Seventy-Five Cases. O. H. Judkins, San Antonio.—p. 27.
Glaucomatous Eye. R. B. Sellers, Ft. Worth.—p. 30.
Treatment of Trachoma. D. W. White and P. C. White, Tulsa, Okla.—p. 33.
Parinaud's Disease. H. L. Hilgartner, Austin.—p. 37.
Treatment of Chemical Burns of Eye. V. R. Hurst, Longview.—p. 41.
Exophthalmic Goiter. G. D. Mahon, Dallas.—p. 42.
Preoperative and Postoperative Management of Exophthalmic Goiter. E. O. Rushing, Dallas.—p. 44.
Peripheral Nerve Lesions of Hand. W. L. Allison, Ft. Worth.—p. 46.
*Thrombo-Angiitis Obliterans. A. Gleckler, Galveston.—p. 52.
*Eight Successive Recoveries from Tetanus. K. H. Beall, Ft. Worth.—p. 54.

Thrombo-Angiitis Obliterans.—Gleckler's patient was a Jew, aged 48. The family history was negative for tuberculosis, syphilis or any vascular disorder. He had always been a moderate eater, used no alcoholic beverages, was of a nervous, high strung temperament, and had for years been an inveterate and incessant smoker of cigarets. About seven years before admission, the patient had a "nervous breakdown," with insomnia, melancholia, loss of appetite and suicidal tendencies, necessitating a lengthy vacation, with subsequent apparent recovery. Some months after this he noticed the first signs of the disease. The index finger of the right hand became sore and swollen, apparently without cause or injury, ultimately becoming gangrenous and requiring amputation. About four years later the thumb of the same hand became affected; then the ring finger of this hand became involved. A few months later the little toe of the right foot was becoming affected in the same manner as the fingers had been. The pain was severe, gangrene set in and the toe had to be amputated. About five weeks before coming to the hospital, the toes on the left foot became very painful and began to swell. The fingers of both hands were slightly cyanosed and cool. No pulse could be felt in either foot, but the veins seemed fairly full. Popliteal pulse was not palpable. Temporal pulse was palpable at times, but at times it was not. The heart sounds were regular and clear, with no murmur. The patient's condition rapidly grew worse in every way and death occurred after three weeks in the hospital.

Phenol and Antitoxin in Treatment of Tetanus.—The eight cases reported by Beall are said to have been severe cases of tetanus; four were extremely severe. The patients were all given limited amounts of tetanus antitoxin, usually 30,000 units on the first day of observation and none thereafter, except one patient who received antitoxin on the second day also. In the first two cases the antitoxin was administered subcutaneously; the third received the antitoxin subcutaneously and intravenously; the last five had 10,000 units of antitoxin administered subcutaneously and 10,000 intraspinously. In all of these cases, in addition, from 1 to 2 grains of phenol, were administered every four hours, intramuscularly, usually in a 15 per cent. watery solution. This was continued until the patient seemed beyond danger. In every case, except one, there was thorough curettage and cauterization of the portal of entry.

FOREIGN

An asterisk (*) before a title indicates that the article is abstracted below. Single case reports and trials of new drugs are usually omitted.

Annals of Tropical Medicine and Parasitology, Liverpool

18:1-129 (April) 1924

*Malaria Parasite of Chimpanzee. B. Blacklock and S. Adler.—p. 1.
Anatomy of Taenia Festiva. G. Theiler.—p. 3.
*Two Rare Specimens of Human Cestodes. S. Yoshida and S. Ogata.—p. 15.
Pig Nematode, Gnathostoma Hispidum, as Human Parasite. K. O. R. Morishita.—p. 23.
Gastrodiscus Hominis. C. Lane.—p. 27.
Morphologic Features of Plasmodium Falciparum. J. W. W. Stephens.—p. 33.
Pearl-Inducing Worm in Ceylon Pearl Oyster. T. Southwell.—p. 37.
Relative Number of Male and Female Crescents. J. W. W. Stephens and R. M. Gordon.—p. 55.
*Tropical Ear. J. M. Forsyth.—p. 61.
Function of Esophageal Diverticula in Adult Female Mosquito. W. R. Wright.—p. 77.
Mosquito Larvae from North Wales. W. R. Wright.—p. 83.
Isospora of Civet Cats. S. Adler.—p. 87.
Ornithodorus Moubata in Relation to Relapsing Fever in Gold Coast. A. Ingram.—p. 95.
Relationship Between Ascarids of Man, Pig and Chimpanzee. H. Thornton.—p. 99.
Ascaris Lumbricoides Causing Fatal Lesions in Chimpanzee. A. W. N. Pillers.—p. 101.
Action of Salivary Secretion of Mosquitoes and of Glossina Tachinoides on Human Blood. W. Yorke and J. W. S. Macfie.—p. 103.
Classification of Cestode Moniezia. G. Theiler.—p. 109.
Trypanosoma Evansi and Ornithodorus Crossi. W. Yorke and J. W. S. Macfie.—p. 125.

Malaria Parasite of Chimpanzee.—For the malaria parasite which occurs in chimpanzees' blood, Blacklock and Adler propose the name of *Plasmodium reichenowi* in consideration of the fact that Reichenow first found the parasite in chimpanzees. The authors were unable to produce malaria in the human by injecting this organism into the blood—nor did the human parasite cause malaria in the chimpanzee.

Rare Human Cestodes—The two specimens of human cestodes described by Yoshida and Ogata are: *Dibothriocephalus parvus* and a remarkable malformation of *D. latus.*

Tropical Ear.—This condition is known in the Malay states as "Singapore ear," but it is prevalent in all tropical or semitropical climates. In Calcutta it is called "Calcutta ear," in Java "Java ear," in Hongkong "Hongkong ear," but the comprehensive term "tropical ear," in Forsyth's opinion is, perhaps, more suitable. He has examined and made cultures from more than a hundred cases. It is a localized infection of the external auditory meatus which does not involve the middle ear, but sometimes, though rarely, extends into it. Forsyth is convinced that *Bacillus pyocyaneus* is the cause.

British Journal of Dermatology and Syphilis, London

36: 139-192 (April) 1924

Wassermann Reaction as Guide to Diagnosis and Therapy of Syphilis. W. Fox.—p. 144.
*Macular Erythema in Patient with Traumatic Hematoma in Abdomen. C. Rasch.—p. 157.

Macular Erythema Following Trauma of Abdomen.—Rasch reports the case of a man who received a severe blow on the abdomen from a wagon pole. A considerable swelling appeared in the lower part of the abdomen, and in addition some flexion of the left hip was noticed, in all probability due to a hematoma in the psoas muscle. On the fifth day a diffuse roseola appeared on the trunk and arms. The macules were pea-sized, in some places arranged in rings of a bright red color, slightly hemorrhagic. As syphilis was excluded absolutely, the rash is believed to have been caused by a resorption of blood and torn muscle tissue. The case is interesting as it shows that erythemata of the syphilitic roseolar type are to be observed which are not due to syphilis.

Bristol Medico-Chirurgical Journal

41: 49-96 (April) 1924

Evolutionary History of Renal and Temporal Bone Surgery. J. L. Firth.—p. 49.
*Cancer of Breast. A. R. Short.—p. 64.
Grave Cardiac Symptoms Due to Multiple Dental Abscess. W. R. Ackland.—p. 79.

Cancer of Breast.—Short believes that cancer in the female breast is increasing in frequency. Of women over 35, 7.5 per cent. will get cancer, and in 1.5 per cent. it will effect the breast. It is much commoner in women who have not suckled than in women who have. In Short's opinion, prevention is best served by advising women to marry, bear children and suckle them properly. A series of 106 cases is analyzed. Of fifty patients followed for three years or more, twenty-five are alive and well. Of favorable cases, 62 per cent. of patients are alive and well. Five patients are alive and well after eight years. In cases of encephaloid carcinoma, Short thinks that the best line of treatment is the use of the roentgen ray first, and removal of the breast afterward. One such patient is alive and well twenty months after being first seen.

British Journal of Anaesthesia, Manchester

1: 149-204 (April) 1924

Snow's Work on Chloroform. D. W. Buxton.—p. 149.
Modern Developments in Anesthesia. S. R. Wilson.—p. 159.
Results of Operations on Circulation. E. I. McKesson.—p. 170.
*Cardiac Massage. A. G. Levy.—p. 179.

Cardiac Massage in Syncope.—Levy urges that in cases of syncope occurring during the administration of an anesthetic, if heart massage is done at all, it must be done promptly and effectively. It should be commenced within five minutes of the onset of syncope. Heart compression, to be effective, should be performed by the hand in the left pleural cavity, the right ventricle being compressed as well as the left. Subdiaphragmatic massage is a waste of time. Effective artificial respiration must be maintained throughout. For cardiac massage to be effective, the cardiac poison present must be a volatile one. The heart must be capable of functioning, and all the other vital organs must be in working order. Cardiac massage is entirely ineffective in the case of a nonvolatile anesthetic or an autogenous toxin. The main use of cardiac massage has been its application in cases of "chloroform syncope." This is a sudden and distinctive form of heart failure, unconnected with overdosage; the heart fails because the ventricles pass into a condition known as fibrillation, when they become absolutely incapable of propelling blood through the arteries. There is always a chance of spontaneous recovery from this condition, but after the lapse of two minutes there is no hope of recovery except by means of cardiac massage; there is no other remedy; artificial respiration alone is useless.

British Medical Journal, London

1: 737-772 (April 26) 1924

*Capillary Pulsation; Vasodilatation in Aortic Regurgitation. T. Lewis.—p. 737.
*Treatment of Fractures. D. P. D. Wilkie.—p. 740.
*Early Treatment of Fractures. C. B. Heald.—p. 743.
*Value of Feeding During Operations on Stomach. H. H. Brown.—p. 746.
Hydrocele Among Lango of Uganda. W. P. Kelly.—p. 746.
Intestinal Obstruction Due to Adhesions. A. H. Burgess.—p. 747.
Intracardiac Injection of Pituitrin in Asphyxia Neonatorum. E. H. Rainey.—p. 747.
"Slipping Rib." E. F. Cyriax.—p. 747.

Capillary Pulsation.—According to Lewis, the evidence as it now stands seems to warrant the conclusion that in all instances of clinical capillary pulsation the capillaries are directly involved, and that the rhythmical change of color, seen macroscopically, is due to pulsatile flow in the minute vessels of the skin, involving always the capillaries, and, perhaps, always involving through these the collecting venules and the venules of the subpapillary plexus.

Treatment of Fractures.—The points stressed by Wilkie are: In the case of most fractures it is necessary to reduce the fracture under a general anesthetic. In upper limb fractures early active movement is desirable. Fractures in the immediate vicinity of the elbow form an exception to this rule. In cases of fracture of the lower limb, restoration of the correct alinement and length of the limb take precedence over all other considerations. In certain fractures, notably Pott's fracture with partial dislocation, immediate fixation in plaster gives the safest assurance of a good result. In compound fractures excision of the wound, with primary suture, should be attempted whenever possible.

Electricity in Treatment of Fractures.—Heald pleads for the use of electricity in the treatment of fractures. He makes daily applications of the anodal galvanic current, however, only as a part of the treatment. His opinion is based on the results obtained with this method in 758 cases. On physiologic grounds the benefit should be obtained from the direct current if used (*a*) with very weak anodal currents, (*b*) with a distant cathode, (*c*) with a wide surface of even entry, such as provided by water, (*d*) with the positive pole more than covering the whole of any muscles involved in the original injury. Comparative clinical experiments were made with the use of warm baths only, with diathermy only, and with the cathode instead of the anode, and the results of these experiments afford confirmation of the true beneficial physiologic effects of the anodal current. Different results are obtained with different polarities, and the effects obtained are not merely counterirritation effects due to the effect of the hydrogen or hydroxyl ions; the anodal current is definitely more sedative and soothing than the cathodal. Diathermy is, up to a certain point, as successful as the direct current, but after this point is reached, there appears to be a weight of clinical evidence in favor of the direct current.

Value of Feeding During Operations on Stomach.—It has been Brown's practice for many years to feed all such patients during the operation by introducing a pint of peptonized milk with a beaten egg and 1 ounce of brandy directly into the jejunum. Since adopting this practice he has not lost a single patient from postoperative shock. An improvement in the patient's condition is immediately manifest, and the pulse gains in volume and tension. It is usual for the patient to leave the table in better condition than he was in before the operation was commenced. The method is as follows: Before the inner row of catgut sutures surrounding the gastrojejunostomy opening is quite completed, the suturing is stopped, leaving an opening of about a quarter inch or less. The jejunal clamp is removed, and the stomach and jejunum are compressed between the finger and thumb of the left hand to prevent escape of fluid. A No. 10 soft rubber catheter, connected by a short length of tubing to a funnel, is introduced through the opening and passed along the jejunum (the finger and thumb keeping up compression around it), until about 8 inches or more have passed along the intestine into a coil which is within the abdominal cavity. The food is then poured slowly into the funnel through a gauze strainer. The funnel should be held about 10 inches above the abdominal wall to avoid too rapid entrance of fluid and distension of the intestine. The whole process takes rather less than ten minutes. The catheter is then withdrawn and the operation completed.

1: 773-808 (May 3) 1924

Puerperal Pelvic Infection. W. E. Fothergill.—p. 773.
Extended Legs as Abnormality in Fetal Attitude. H. Briggs.—p. 774.
*Acute Bronchitis. T. Oliver.—p. 776.
Five Cases of Auriculoventricular Bundle Branch Block. D. Hall.—p. 778.
*Duodenal Ulcer Among Medical Men. P. Forsyth.—p. 780.
*Gonorrheal Iritis. E. R. Chambers.—p. 781.
*Intubating the Esophagus for Malignant Stricture. H. S. Souttar.—p. 782.
Extra-Uterine Pregnancy on Two Occasions. F. Carson.—p. 783.
Old Standing Dislocation of Radius. J. W. Thomson.—p. 783.
Congenital Absence of One Kidney. E. R. Gilmore.—p. 784.
Tuberculosis of Larynx. S. Thomson.—p. 788.

Pathogenesis of Infections: Bronchitis.—What the nature of the interaction is which takes place in disease between micro-organisms and tissue cells is still largely a matter of speculation, but it is more than probable, in Oliver's opinion, that in certain circumstances the surface tension of the tissue cells becomes lowered, whereby micro-organisms which had been lying external to the cells break through the barrier and become intracelular so that disease follows. So long as the microbes remain extracellular, persons harboring them must be considered microbe carriers, and as in this relationship the micro-organisms do little harm, few, if any, symptoms develop, even though it is probable that antibodies are not produced. As a consequence of atmospheric conditions or of infection, micro-organisms other than those of which these persons are carriers may fix themselves on the nasorespiratory mucous membrane and, giving rise to a type of catarrh peculiarly their own, the catarrh descends into the bronchi. It is believed that some gram-negative microbes are capable of lowering the surface tension of animal cells, whereby their own passage into the interior of the cells is effected. Here, in their new habitat, toxins, along with antitoxins, are formed —and the patient, till then a microbe carrier, begins to suffer from the disease specific to the micro-organisms concerned.

Duodenal Ulcer and Life Insurance.—Forsyth discusses this subject from the standpoint of mortality and life insurance. He asserts that the figures published give no support to the claims to greater effectiveness of either surgical or medical treatment; on the contrary, they show that the results of the two methods leave little to choose between them. From an actuarial point of view, it becomes necessary to regard proposals for sickness insurance, when there is a history suggestive of duodenal trouble, as highly unfavorable. Such cases should be rejected as uninsurable, though in proposals for life insurance the risk is less.

Gonorrheal Iritis.—Chambers points out that with correct and adequate treatment, not only can this disease in most cases be cured permanently, but, by clearly understanding its origin, entirely prevented.

Flexible Sound for Intubating Esophagus.—Souttar passes a flexible metal tube through the stricture, thus maintaining the lumen of the esophagus. The tube does not become foul, hence needs never to be removed. He has adopted a simple close spiral of German silver wire, expanded at the upper end. It is extremely flexible, absolutely incompressible, is very light, and occupies very little room. Food does not tend to cling to it. The metal turns black, but this can be prevented by gilding. It appears to be possible to leave these tubes in position indefinitely, and they do not show any tendency to ulcerate through the esophageal wall. The tube simply canalizes the mass of growth, and it probably never exerts pressure on the esophageal mucosa.

Irish Journal of Medical Science, Dublin

5: 147-194 (April) 1924

*Partial Duodenal Obstruction. G. E. Nesbitt.—p. 147.
*Resecting the Left Cervicodorsal Ganglion of Sympathetic in Angina Pectoris. A. K. Henry.—p. 157.
Case of Paroxysmal Tachycardia. L. Abrahamson.—p. 168.

Partial Duodenal Obstruction Causes Dyspepsia.—Nesbitt is convinced that partial duodenal obstruction can be demonstrated in a large proportion of cases with chronic dyspeptic symptoms. The cause of the obstruction varies, but the most common is compression by the superior mesenteric artery. In Nesbitt's experience it is nearly always associated with an abnormal condition of the colon. The possession of a mesentery, i. e., mobility alone, is not sufficient; some other factor is necessary, such as descent over the pelvic brim, chronic constipation or loss of tone in the abdominal muscles. Treatment consists in regular emptying of the colon with support for the latter by an efficient abdominal belt. Failing improvement on these lines, colopexy is indicated, or possibly duodenojejunostomy. Four cases are cited.

Cervical Sympathectomy for Angina Pectoris.—Henry approaches the cervical ganglion by the posterior route, that is to say, by a costotransversectomy at the level of the first rib. The seventh cervical spine is the point of a sort of half circle incision which gives a good exposure of the underlying muscles, trapezius, rhomboids and serratus posticus superior, whose origins are divided and the second rib is found and divided from the costotransverse articulation. The sympathetic cord can now be seen close to the vertebral body, lying on the pleura like a tape. The sympathetic cord is divided between the cervicodorsal and the second dorsal ganglion, also the communications between the back of the gangion and the eighth cervical and first dorsal nerves. The right index finger is passed, nail down, into the interval between the ventral face of the ganglion and the back of the vertebral artery, and by gentle traction on the sympathetic cord the ganglion is lifted so that the branches which pass to the artery come into view. These are divided. Next, the cord which passes up to the middle cervical ganglion is cut. The resection of the ganglion is completed by dividing the inferior cardiac nerve.

National Medical Journal of China, Shanghai

10: 1-73 (Feb.) 1924

Early Diagnosis of Trachoma. T. M. Li.—p. 1.
Incidence of Parasitic Helminths in Soochow. K. H. Li.—p. 7.
Plea for Conservation of Vision in China. W. P. Ling.—p. 20.
Death Rate of Hongkong as Criterion of Mortality in China. L. Ting-An.—p. 25.
Tissue Immunity. S. Nukada.—p. 33.
Our Place in Field of Medical Education. F. C. Yen.—p. 35.

Bulletin de l'Académie de Médecine, Paris

91: 473-492 (April 15) 1924

Perception of Distance and of Relief. Hanriot.—p. 475.
Rôle of Contagion in the Family in Tuberculosis in Children. P. Armand-Delille and A. M. Famin.—p. 479.
*Abdominal Hysterectomy in Puerperal Infection. Auvray.—p. 481.
*Syphilis of the Esophagus. J. Guisez.—p. 483.
*Vaccination by the Mouth Against Typhoid. A. Gauthier.—p. 486.

91: 547-580 (May 6) 1924

Illusions Due to Stereoscopic Vision. Béclère.—p. 564.
*Cirrhosis of the Liver. A. Chauffard and P. Brodin.—p. 569.
Ventilation of Infants' Wards. J. Renault.—p. 575.

Abdominal Hysterectomy in Puerperal Infection.—Auvray removed the uterus in nine recent cases of extremely grave puerperal infection progressing after curettage. In five cases fragments of placenta were found that the curet had missed: one uterus had been perforated; cancer was found in one, and in others incipient gangrene and thrombophlebitis. Three of the women were saved by the operation.

Syphilis of the Esophagus.—Guisez comments on the extreme rarity of syphilitic disease of the esophagus. Improved methods of examination usually reveal simple inflammatory stenosis instead of the supposed syphilitic lesion.

Vaccination by the Mouth Against Typhoid.—Gauthier is surgeon general of the French army, and he here reports his experiences with refugees and others in Greece—a total of nearly 4,000 vaccinations by the mouth. The vaccine was taken fasting on three consecutive days. In one town where there had been 200 cases of typhoid in two months, only one new case developed after over 1,000 persons had taken the vaccine. The previous repugnance of the populace to vaccination was overcome by the change to buccal administration, and the entire population was thus protected although nothing was done to purify the drinking water, the source of the contagion. In two large villages the entire population took the vaccine, and the epidemic of typhoid was arrested at once, only four new cases developing, all during the negative phase. The reaction to the vaccine by the mouth was slight or nil.

Liver Cirrhosis in Men and Women.—Chauffard and Brodin have observed, since the war, an increase in the proportion of women with cirrhosis of the liver. In the last two years, sixteen of their twenty-three patients were women. The disease is more polymorphous in them and has a greater tendency to fatty degeneration. They believe that men's livers are hereditarily more resistant to alcohol. In the discussion, Sergent pointed to the possibility of an increase in syphilis as an adjuvant factor.

Comptes Rendus de la Société de Biologie, Paris

90: 989-1127 (April 18) 1924. Partial Index

Reaction of Normal Serum to Colon Bacillus. Weinberg and Ginsbourg.—p. 992.
*Nature of the Virus of Rabies. C. Levaditi et al.—p. 994.
Complement Fixation in Toxic Herpes Zoster. Netter and Urbain.—p. 997.
System of Small Lamps for Microscopy. A. Michel.—p. 1000.
Botulinus Bacillus in Canned Meats. C. Bidault.—p. 1002.
Invasion of Bones by Echinococcus. F. Dévé.—p. 1004.
Plasma in Old Age. A. Carrel.—p. 1005.
Suture of Semilunar Valve. A. Carrel.—p. 1008.
Sensitization of Virus of Foot and Mouth Disease. H. Vallée and H. Carré.—p. 1009.
Orientation of Hind Leg of Vertebrates. F. Lataste.—p. 1010.
Mineral Composition of Dog's Blood. A. Blanchetière and H. Cardot.—p. 1017.
Oxidation Reduction Without Catalyzer. Girard and Platard.—p. 1020.
*Intolerance to Lumbar Puncture. G. Guillain et al.—p. 1025.
Sound and Wave Length. P. Kucharski.—p. 1027.
*Metabolism of Cholesterol. A. Rémond et al.—p. 1029.
Epinephrin Glycemia and Alimentary Glycemia. H. Claude.—p. 1030.
Coagulation of Fluid in Hydrocele. Lisbonne.—p. 1033.
Pelvis of Male and Female. F. Villemin et al.—p. 1035.
Action of Insulin on Blood Coagulation. J. La Barre.—p. 1038.
Meningococcus Orchiepididymitis Does Not Entail Azoöspermia. Sabrazès et al.—p. 1043.
Experimental Diabetes and Insulin. Mauriac and Aubertin.—p. 1046.
Glycolysis in Liver and Muscles. Mauriac and Aubertin.—p. 1048.
Glycolysis in Lungs. P. Mauriac and R. Dumas.—p. 1050.
Regeneration of Pituitary Cells in Man. R. Collin.—p. 1053.
Pathologic Pigmentogenesis. P. Florentin.—p. 1055.
Experimental Suprarenal Pigment Reaction. J. Watrin.—p. 1061.
Experimental Periarterial Sympathectomy. Papilian and Cruceanu.—p. 1063.
Cholesterol in Experimental Diabetes. I. I. Nitzescu et al.—p. 1067.
Geographical Differences in Blood Grouping. G. Popoviciu.—p. 1069.
Racial Blood Grouping in Roumania. S. Manuila.—p. 1071.
Antibodies Generated in Ectoderm. L. Isaicu and T. Turcu.—p. 1073.
Antigenic Albumincid in Bones. Kernbach.—p. 1075.
Insuline and Oxydases of Muscle. I. I. Nitzescu and I. Cosma.—p. 1077.
Retroperitoneal Teratoma. M. Kostitch.—p. 1081.
Muscle Function and the Suprarenal Capsules. R. Hauptfeld.—p. 1083.
Maximal Metabolism of Rest and Metabolism Quotient. J. Giaja.—p. 1087.
Ectromelia: Statistics and Examples. Pires de Lima.—p. 1091.
Organotherapy Applied to Plants. S. Rébello.—p. 1095.
Kidney Function and Theories of Urine Secretion. G. Modrakowski.—p. 1101.
Variability of Bacteria with Temperature. E. Hirszfeld and J. Zajdel.—p. 1104.
Rôle of Carbon Dioxid in Bacterial Cultures. S. Sierakowski and R. Zajdel.—p. 1108.
Formation of Trabeculae in the Bladder. F. Alksnis.—p. 1113.
Stain for Connective Tissue. I. Karlson.—p. 1122.
Study of the Scaphoid Scapula. F. de Neureiter.—p. 1123.
Division of Bronchi. G. Backman.—p. 1126.

Nature of Rabies Virus.—Levaditi, Nicolau and Schoen are convinced that street rabies virus is a germ closely akin to protozoa. Inoculated in the ultramicroscopic form, it passes through a cycle of evolution and becomes visible in the form of the Negri bodies. Fixed virus, on the other hand, is a variety of street rabies virus, modified by mutation. It is more virulent for the animals responsible for the mutation, while it is less pathogenic for man and monkeys. It has also lost the special pansporoblastic cycle of evolution represented by the Negri bodies. It is a most interesting example of mutation of a pathogenic micro-organism by animal passage.

Intolerance to Lumbar Puncture.—Guillain, Alajouanine and Lagrange report disturbance of the optic disk appearing after lumbar puncture in cases of intolerance: congestion of the disk with dilatation of veins and sometimes even edema. They consider this as a paroxysmal attack of intracranial hypertension caused by hypersecretion by the choroid plexuses due to the withdrawal of cerebrospinal fluid or other changes in the hydraulics of the spine and skull. The ophthalmoscopic findings were normal in all the subjects tested who had borne lumbar puncture without headache, vomiting or vertigo, while the optic disk was congested in practically all who had presented symptoms of intolerance.

Metabolism of Cholesterol.—Rémond, Colombies and Bernardbeig report the results of twelve experiments made on dogs during digestion. The blood in the right heart contained 0.16 gm. more cholesterol per liter than in the left; the portal vein had 0.15 gm. more cholesterol than the splenic; the splenic vein had 0.16 gm. less than the right heart, but almost the same amount of cholesterol as the left heart. This proves that cholesterol is stored or destroyed in the liver and in the lungs.

Paris Médical

393-432 (May 3) 1924

Diseases of Nutrition in 1924. Rathery and Kourilsky.—p. 393.
Diabetes Mellitus. E. P. Joslin.—p. 410.
*Renal Diabetes. M. Labbé.—p. 417.
*Dosage of Insulin. A. Desgrez et al.—p. 423.
Alimentary Balance and Bone Growth. Mouriquand and Michel.—p. 427.

Renal Diabetes.—Labbé reports the histories of four patients with renal glycosuria. It seems that the disturbance started in three of them together with albuminuria after infectious sore throat. Heredity is also a factor. Calcium together with parathyroid extract, as recommended by Cammidge, might be tried.

Dosage of Insulin.—Desgrez, Bierry and Rathery reject the animal experiment for titration of the units of insulin. It can decide only whether the drug is active. The actual individual dosage has to be found out on the patient.

Presse Médicale, Paris

32: 365-376 (April 26) 1924

*Fever and Joint Lesions of Protein Origin. F. Bezançon et al.—p. 365.
Coprologic Signs of Colitis. R. Goiffon.—p. 367.
Effect of Albumin on Glycosuria in Diabetes. H. A. Lubbers.—p. 370.
Treatment of Pernicious Anemia by Neisser's Arsenical Method. L. Cheinisse.—p. 371.

Fever and Arthropathies of Protein Origin.—Bezançon, Weil and Gennes emphasize that a whole series of diseases with fever, arthropathies and local or generalized eruptions are of protein origin, and infection is not a factor. Serum sickness is the most complete example, but the Pirquet and Schick tests belong in this group, as well as acute gout and disturbances from absorption of incompletely elaborated proteins through the intestinal organs. In a case of essential paroxysmal hemoglobinuria, fever and articular disturbances accompanied the hemoglobinuria.

32: 377-384 (April 30) 1924

*Treatment of Bimalleolar Fracture. Savariaud.—p. 377.
Conditions Favoring Epileptic Seizures. P. Hartenberg.—p. 379.

Nonoperative Treatment for Bimalleolar Fracture.—Savariaud believes that nonoperative measures are superior to osteosynthesis in cases of recent fractures of both malleoli. After reduction of the fracture by extension, or by spinal anesthesia in cases of muscular contraction, he places the hypercorrected foot in a resistant and properly modeled cast till complete consolidation, changing to a walking apparatus the third or fourth week.

32: 385-396 (May 3) 1924

*Iodin in Prophylaxis of Endemic Goiter. M. Roch.—p. 385.
*Appendicitis from Foreign Bodies. J. Berger.—p. 388.
*Vincent's Angina and Etiologic Treatment. J. Puig.—p. 390.
Insulin Treatment Outside of Diabetes. L. Cheinisse.—p. 391.

Iodin in Prophylaxis of Endemic Goiter.—Roch advises in countries with endemic goiter that prophylaxis must be started in intra-uterine life and continued throughout life. Iodized table salt is a practical and economical solution of the problem.

Appendicitis from Foreign Bodies.—Berger emphasizes that in many cases of appendicitis from intestinal infection the lesion is due to some inorganic foreign body. He reports six cases.

Vincent's Angina and Etiologic Treatment.—Puig emphasizes that the decreased resistance of the mucosa to fusospirochete symbiosis is caused in 5 per cent. by some general disease and in 95 per cent. by malevolution of the first permanent molars or by a wisdom tooth. His conclusion is that this angina has to be treated by building up the general condition and extraction of the tooth involved.

32: 397-408 (May 7) 1924

The System of Interstices Throughout the Body. C. Achard.—p. 397.
*Volkmann's Ischemic Retraction. Soubeyran and Lenormand.—p. 401.
Experimental Typhoid. Sédan and Herrmann.—p. 403.
Subacute Inguinal Lymphogranulomatosis. C. Gamna.—p. 404.

Pathogenesis of Volkmann's Ischemic Retraction.—Soubeyran and Lenormand explain the localization of the contracture exclusively in the flexor and pronator muscles by the anatomy of the arterial system in the arm. In case of violent compression of the forearm, the circulation stops in the ventrad part but persists in the dorsad, owing to the anastomotic plexus of the elbow. The defective circulation prevents oxygenation, and chemical transformations which occur are followed by shortening and stiffening of muscular fibrils. They give five illustrations of their experiments.

Progrès Médical, Paris

293-304 (May 10) 1924

Paraplegias from Compression of Cord. C. Achard.—p. 293.
*Successful Homoplastic Grafts. J. Epstein.—p. 296.

Successful Homoplastic Grafts.—Epstein's experiments on animals demonstrate the importance of compatibility of the blood for the success of homoplastic transplants and of parabiosis. The transplant becomes necrotic in a dog whose serum hemolyzes the corpuscles of the donor, and its growth is impaired if the donor's corpuscles are agglutinated. The graft may be successful with inverse behavior of the blood.

Revue Franç. de Gynécologie et d'Obstét., Paris

19: 193-240 (April 10) 1924

*Vaccine Therapy of Adenitis. L. Chevrier et al.—p. 193.

Vaccine Therapy of Adnexitis.—Chevrier, Fumery and Dausse give an illustrated description of the technic for obtaining material for an autogenous vaccine, and the results they have been realizing with this treatment since 1922 in cases of inflammatory processes in the uterus and adnexa. They gave one or two series of ten injections each and state that the results were conclusively convincing in forty of their fifty cases, as they describe in detail. Tuberculosis and albuminuria contraindicate this autovaccine therapy. The focal and general reaction testify to the action of the vaccine and guide the course of treatment. Acute gonococcus metritis seems to be the most susceptible to this treatment. It merely supplements the usual methods but relieves the pain at least, and the lesions often retrogress more rapidly than under other measures.

Schweizerische medizinische Wochenschrift, Basel

54: 405-428 (May 1) 1924

*Criminal Abortion. T. Wyder.—p. 405.
Progress in Roentgen Treatment. M. Steiger.—p. 411.
*Acid-Alkali Balance at High Altitudes. P. György.—p. 416.
*Traumatic Shock. J. H. and H. Oltramare.—p. 420.
Preventive Diphtheria Vaccination. W. Hoffmann.—p. 420.

Criminal Abortion.—Wyder discusses the various means proposed to curb the frequency of criminal abortions. Enlightening of laymen as to the dangers of it would be valuable. Many mysterious sudden deaths of women are due to an embolism from this cause. Legal permission for abortions—as nearly happened in Basel—would increase their number and at the same time would enhance the frequency of extramarital intercourse. He believes that with very few exceptions it is only the fear of pregnancy, and not morals, which keeps women from indulging in intercourse or adultery. Contrary to others, he believes that the woman should be exempt conditionally from punishment only if her testimony aids materially in conviction of the abortionist or when rape is beyond question—especially under the influence of drugs—though he also believes in the possibility of rape on a conscious person. He would favor a limitation of the professional secrecy except in cases with attenuating circumstances. He regards as such the usual social indications, and conceptions which have occurred as a means to induce the man to marry the woman (*stuprum sub spe matrimonii*). He is opposed to eugenic indications, and prefers castration.

Acid-Alkali Balance at High Altitudes.—György found a decrease of the urinary elimination of acids at high altitudes. Exertion causes a moderate increase in acidity. Spasms from forced respirations ("respiratory tetany") are produced more easily at high altitudes. The whole metabolism shows a shifting to the alkaline side.

Traumatic Shock.—J. H. and H. Oltramare observed a lowering of blood pressure in traumatic shock in rabbits with anesthetized bulbar centers. Therefore the initial lowering is due to a peripheral mechanism.

Lettura Oftalmologica, Pistoia

1: 1-54 (Jan.) 1924

*Retinal Hemorrhage in Malaria. S. Canitano.—p. 1.
*Injection of Milk in Ophthalmology. F. R. Pollice.—p. 10.
*Insulin and Surgery of the Eye in Diabetics. P. Nichelatti.—p. 21.

Mixed Quinin and Arsenical Treatment of Retinal Hemorrhage in Malaria.—Canitano comments on the frequency with which retinal hemorrhage is found on ophthalmologic examination of malarial subjects. It is liable to occur even when quinin is being systematically pushed. Excessive heat, overexertion, reading to excess during convalescence, efforts at vomiting, etc., are liable to bring it on, the retinal vessels being weakened by the malaria toxin. Arsenic on the other hand seems to paralyze the by-effects of quinin on the blood and nerves while it augments the resistance of the blood corpuscles to toxic influences, and promotes phagocytosis, and its slow elimination enables its general tonic action to be long felt. He describes three cases in which the benefit

from the combination of quinin and an arsenical was marked. The hemorrhages were resorbed and vision improved. Under quinin alone the hemorrhages had continued. He used an Italian preparation of sodium methylarsenate.

Parenteral Protein Therapy in Ophthalmology.—Pollice had excellent results in ten children with eczematous eye affections and eight with conjunctivitis, in an adult with rheumatic iridocyclitis and in an infant with gonococcus ophthalmia, all recovering under a series of parenteral injections of milk. No benefit was observed in six cases of trachoma.

Insulin and Surgery of the Eye in Diabetics.—Nichelatti remarks that the presence of sugar in the urine of a patient with cataract does not contraindicate removal of the cataract, but complications are more likely with it. In a recent case, rebellious to dietetic measures, the sugar and acetone persisting, the iris dilating only partially under the influence of atropin, the lens incompletely opaque, he administered insulin preliminary to the operation and afterward, and the operation proceeded smoothly and convalescence was uneventful.

Rivista di Clinica Pediatrica, Florence

22: 289-360 (May) 1924

*Infectious Erythema. P. Brusa.—p. 289.
Busacca's Reaction in Tuberculosis. V. Zamorani.—p. 309.
Criticism of Caronia. A. Amato.—p. 330.
Bronchial Asthma in Children. U. Valgimigli.—p. 333.

Infectious Erythema.—Brusa found neutrophilia and eosinophilia in children with infectious erythema.

Anales de la Sociedad Méd.-Quir. Guayaquil

4: 60-111 (Feb.) 1924

Meningococcus Meningitis Identified in Ecuador. J. D. Moral.—p. 93.
*Leptospirosis Icterohemorrhagiæ in Ecuador. J. M. Carbo-Noboa.—p. 97.

First Case of Leptospirosis Icterohemorrhagiae Experimentally Reproduced in Ecuador.—Carbo-Noboa remarks that by a curious coincidence in this first case confirmed experimentally, the patient died the fifth day of the disease before jaundice or hemorrhage had developed. No parasites could be detected in the blood but two out of five guinea-pigs inoculated with the blood developed typical experimental leptospirosis icterohemorrhagiae, with numerous leptospiras in the blood. He has had two clinical cases with leptospiras in the blood. These patients were children, and both recovered.

Archivos Brasileiros de Medicina, Rio de Janeiro

14: 119-180 (Feb.) 1924

*Appendicitis and the Roentgen Rays. A. Farani.—p. 119.
The Rejuvenation Question. Reynaldo de Aragão.—p. 125.
Intestinal Amebiasis. G. Trigueros.—p. 131.

The Roentgen Rays in Appendicitis.—Farani extols the value of roentgenoscopy in locating the appendix and thus showing the most direct route for approach.

Estudios Médicos, Murcia

2 (March) 1924

*Cutis Verticis Gyrata. E. Alvarez y Sainz de Aja and J. Bravo.—pp. 1-7.
*After Nephrectomy for Tuberculosis. P. Cifuentes.—pp. 1-13.
Roentgen Rays in Diagnosis Before Surgery of Stomach and Intestines. M. Fernández-Corredor y Chicote.—pp. 1-5.
Main Extensor Muscle of the Toes. G. Sánchez Guisande.—pp. 1-48.
Purification of Drinking Water. P. Martinez Torres.—pp. 1-17.

Cutis Verticis Gyrata.—The young shepherd was born with the skin loose at the anterior margin of the scalp on one side, and at 20 the skin lay in deep folds, reaching low on the cheek unless the loose skin was pushed back by a cord tied around the head. The illustrations show that it was a typical instance of Alibert's dermatolysis. The redundant inelastic skin was resected.

After Nephrectomy for Tuberculosis.—Cifuentes remarks that the other kidney usually hypertrophies and hence it is ready to take up the work of both kidneys when the diseased one is removed. A few days are necessary for it to become adjusted to this task and overcome the shock of the operation and the almost inevitable slight toxic nephritis from which it has been suffering. Delay in healing is generally traceable to ureteritis; tender points along the ureter and pyuria should suggest this. In one case a second operation revealed that a fragment of the kidney tissue was still adherent to the ureter, and this was responsible for the persisting ureteritis although the fistula had healed. Ligating should be done with catgut; the perirenal adipose tissue should be removed as completely as possible, and drainage should be avoided when feasible. The stump of the ureter is cauterized, sutured and abandoned. Inflammatory processes in the bladder heal after the nephrectomy, as a rule, but in one case they persisted until after the ureter had been removed secondarily on account of rebellious inflammation. In another case profuse hemorrhage from the inflamed ureter kept up hematuria for two days, two months after the nephrectomy, and then it subsided.

Medicina Contemporanea, Lisbon

42: 137-144 (May 4) 1924

*A Case of Azotemic Meningism. A. Pecegueiro.—p. 137.

Uremic Meningeal Syndrome.—Pecegueiro reports a case in which none of the usual explanations could be found for the intense severe sickness, agonizing headache, repeated vomiting and intractable constipation. Epidemic encephalitis is rare in Portugal, and the symptoms did not fit into this frame, while the course was too slow for a tuberculous or syphilitic meningitis and too rapid for a brain tumor. The lumbar puncture fluid was approximately normal except for 0.256 per thousand urea; the urea content of the blood was 0.4609, and of the urine 8.637, as the young man began to improve by the end of a week. Stain tests confirmed the insufficiency of the kidneys and stamped the clinical picture as probably azotemic meningism.

Revista Medico-Cirurgica do Brazil, Rio de Janeiro

32: 55-108 (Feb.) 1924

*Recent Literature on Insulin. Carlos Seidl.—p. 55.
Brazil and the Rockefeller Foundation. Idem.—p. 93.

Recent Literature on Insulin.—Seidl comments on the world-wide sensation that followed the announcement of the discovery of insulin. Clinicians in Brazil were at once besieged by diabetics clamoring for treatment with the new remedy. The insulin now made in Brazil by Drs. Marques da Cunha and Munoz is standardized by the Canadian method, and he reproduces various reports of experiences that have been published by Brazilian physicians. Madeira emphasizes the necessity of adequate doses. Valle had to suspend the insulin in one case on account of uremic nephritis, which continued its course unmodified by the insulin, and in another case on account of the appearance of edema in the legs. Seidl reproduces also the reports of some French and Dutch writers on insulin.

Revista Médica Cubana, Havana

35: 255-344 (April) 1924

Internal Version. A. Sánchez de Bustamente.—p. 255.
*Cancer of the Bladder. J. A. Hernández e Ibáñez.—p. 263.
*Treatment of Ringworm of the Scalp. V. Pardo Castelló.—p. 275.
*The Thyroid Gland in Young Children. J. A. Figueras.—p. 278.
Gallbladder Sagging into Iliac Fossa. N. Gómez de Rosas.—p. 284.
The Pain with Gastric and Duodenal Ulcer. J. Lastra y Camps.—p. 286.

The High Frequency Current and Deep Roentgen Therapy in Cancer of the Bladder.—Hernández e Ibáñez applies diathermy by the natural route and then gives deep roentgen-ray and radium sittings after the tumor has been destroyed by the high frequency current. He gives the details of eleven cases in which this mixed treatment was applied. There was never aggravation of the tumor, and there has been no recurrence in any instance. The first cases date from 1921. Cystoscopy is imperative in case of hematuria without other symptoms. The current should be of large amperage and small voltage. This alone is not effectual for cancer of the bladder; deep roentgenotherapy or radium treatment or both is indispensable in addition.

Ringworm of the Scalp.—Ringworm had been prevailing for six years in the Cojimar Preventorium, rebellious to all mechanical and medicinal measures. Then roentgen-ray treatment was systematically applied, and the endemic was arrested at once. In the sixteen boys thus treated the normal growth of hair was restored within three months.

The Thyroid Gland in Young Children.—Figueras reports a case of exophthalmic goiter in a girl aged 10, the only instance in a child of which he knows in Cuba. Myxedema is more common, and he describes some cases in infants 15 and 22 months old. In one girl, after a period of precocious puberty, menstruating at the age of 9, myxedema developed at the normal age for puberty, and the child became an obese idiot.

Deutsche medizinische Wochenschrift, Leipzig

50: 561-592 (May 2) 1924

Secondary Anemia and Chlorosis. Seyderhelm.—p. 561.
*Kauffmann's Circulation Test. F. Heilbronner.—p. 563.
Medical Examination of Students. H. Rautmann.—p. 565.
Treatment of Gastric and Duodenal Ulcer. M. ten D. Koolman.—p. 569.
*Immune Serum Against Stomach Mucosa. K. Tadenuma.—p. 570.
Virulence of Streptococci. C. Gambetti.—p. 571.
Gynecologic Pneumoperitoneum. R. Dyroff.—p. 572.
Paratyphoid B Epidemic. F. Cappelles.—p. 574.
Paratyphoid B in Young Children. F. Lehmann.—p. 575.
Determination of Blood Sugar. R. Kleitsman.—p. 576.
Lumbar Puncture in Bronchial Asthma. W. Schultz.—p. 576.
Psychotherapy of Mucous Colitis. W. Jehn.—p. 577.
Pneumobacillus Meningitis in Infant. F. Elias.—p. 578.
Pigmented Ovarian Pseudomucin Cystoma. W. Lahm.—p. 579.
*Protein Treatment of Epilepsy. E. Weidner.—p. 580.
*Intraspinal Autoserotherapy of Chorea. F. Rohr.—p. 581.
Maternity Protection in Russia. N. Semaschko.—p. 581. Conc'n.
Autonomous Growth Force of Fetus. S. Peller.—p. 582.
Improper Nourishment from Surgical Standpoint. C. Goebel.—p. 589.

Kauffmann's Circulation Test.—Heilbronner tested Kauffmann's method on eighty patients. The test subject drinks four times 150 c.c. of water at hour intervals. Then the foot of the bed is raised about 25 cm. In case of any insufficiency of the circulation, the diuresis increases during the following two hours. The test was negative with simple cardiac neuroses and in very grave valvular defect with broken compensation.

Immune Serum Against Stomach Mucosa.—Tadenuma injected an emulsion of dog's gastric mucosa into rabbits. The serum of these animals increased the gastric secretion in dogs. When extracts from the stomach were injected repeatedly in dogs, their action diminished and even pilocarpin failed to produce secretion. He believes that the anacidity in cancer may be due to a similar action of autolysins.

Protein Treatment of Epilepsy.—Weidner has had negative results with injections of proteins in epileptics.

Intraspinal Autoserotherapy of Chorea.—Rohr found a marked increase in the pressure of the cerebrospinal fluid in five children with chorea. Intraspinal injections of their own serum had not the slightest beneficial effect on the disease.

Medizinische Klinik, Berlin

20: 589-624 (May 4) 1924

Appearance of Human Iris. W. Gilbert.—p. 589. Cont'd.
Scarlet Fever Problems. E. Hoffstaedt.—p. 592.
Roentgen Diagnosis of Pyloric Ulcers. G. Herrnheiser.—p. 596.
Prognosis of Bone Tuberculosis. S. Simon.—p. 599.
Foreign Body in Lungs. H. Koopmann.—p. 601.
*Intrathoracic Auscultation. S. Bondi.—p. 602.
*Neurologic Mistakes. P. Schenk.—p. 603.
Leukemia with Paratyphoid B. J. Reymann.—p. 604.
Treatment of Purulent Mastitis. J. Tauber.—p. 607.
*Artificial Heart. G. Hauffe.—p. 607.
Survey of Tuberculosis Literature. H. Gerhartz.—p. 610.

Intrathoracic Auscultation.—Bondi describes his technic for auscultation of the heart from the esophagus.

Neurologic Mistakes.—Schenk reports the history of an officer whose left arm was paralyzed by a bullet wound. The radial nerve had been sutured yet the function did not return. The extremity was cyanotic, but there was no atrophy. Numerous physicians and quacks declared the condition incurable. The patient was cured by psychotherapy eight years after the wound. It is interesting that he passionately refused to consider amputation of the arm.

Artificial Heart.—Hauffe observed rhythmic pulsations in rubber tubes perfused with water whenever he compressed their lumen at some point. The phenomenon resembles very much the pulsating of the cylindrical hearts of worms.

Münchener medizinische Wochenschrift, Munich

71: 539-568 (April 25) 1924

*Wassermann Tuberculosis Reaction. Jacob and Moeckel.—p. 539.
*The Muscles After Insulin and Fasting. Kuhn and Baur.—p. 541.
*Changes in Sugar Content of the Blood. H. Rotky.—p. 544.
Diagnosis of Metastases in Lungs. J. Blum.—p. 545.
Sedimentation Test. H. Pribram and O. Klein.—p. 546.
*Development of Oxyuris. N. Wundt.—p. 546.
"Partial Antigens." G. Deycke.—p. 548.
*The Gastroduodenal Tube. T. Bársony and E. Egan.—p. 549.
Treatment of Polyarthritis. C. Rennen.—p. 550.
Treatment of Morphin Addicts. H. Schmitz.—p. 551.
Pregnancy After Extirpation of Both Tubes. C. H. Lasch.—p. 552.
Gas Metabolism Apparatus. H. W. Knipping.—p. 553.
"Antigen for Meinicke's Reaction." E. Meinicke.—p. 554.
Twins and Extraneous Factors. W. Weinberg.—p. 554.
"Treatment of Eclampsia." E. Zweifel.—p. 555.
Traumatic and War Neuroses. H. Curschmann.—p. 555.
Tuberculosis Control in England. R. Güterbock.—p. 557.
Criminal Abortion. K. Dreyer.—p. 558.

Wassermann's Tuberculosis Reaction.—Jacob and Moeckel tested the Wassermann tuberculosis reaction in 302 patients. It was positive in 87 per cent. of the grave cases of tuberculosis; in 80.2 per cent. of the milder forms, and in over 16 per cent. of the probably not tuberculous controls. They consider the reaction as very valuable.

The Muscles After Insulin and Fasting.—Kuhn and Baur found from 0.01 to 0.02 per cent. of lactic acid in the muscles of starved rabbits. The maximal amount of the acid in the muscles of animals killed by insulin was 0.08 per cent. Normal rabbits fasting for twenty-four hours had about 0.16 per cent. and it increased after death to 0.40 per cent. The lactic acid doubles after death in the starved animals, but does not change in the insulin rabbits. They observed after insulin, under circumstances which have not been determined as yet, a state of *vita minima* lasting up to fifty hours: The animals grow cold, have only from 3 to 10 respirations per minute, and reflex excitability is almost entirely lost. They find striking parallels between the death caused by insulin and that from starvation.

Changes in Sugar Content of the Blood.—Rotky examined the blood sugar in various stages and types of nephritis. The figures were low with hydremia and high with the formation or elimination of edemas. Hyperglycemia was marked in oliguric patients.

Development of Oxyuris.—Wundt found parasites or their eggs in fifteen of fifty appendices. Oxyuris was present in 24 per cent. of them. She believes that their development without passage through the stomach is improbable.

The Gastroduodenal Tube.—Bársony and Egan used their combined gastric and duodenal tube. Its introduction into the duodenum produced a motor reaction of the stomach which resembled the findings in cases of duodenal ulcer.

71: 569-600 (May 2) 1924

Intestinal Cells and Ingested Dyes. W. v. Möllendorff.—p. 569.
*Pathogenesis of Gastric Ulcer. O. Mueller.—p. 572.
*Capillaries of Lip in Gastric Ulcer. R. Mayer-List.—p. 574.
*Serologic Split Products. W. Lüttge and W. v. Mertz.—p. 576.
Ramon's Flocculation Test. O. Flössner and F. Kutscher.—p. 576.
Treatment of Fracture of Radius. J. Wymer.—p. 577.
*Color of Hair. J. K. Mayr.—p. 578.
Treatment of Scabies. W. Schaudig.—p. 579.
Pediculus Pubis on the Scalp. H. Klövekorn.—p. 580.
Medicolegal Significance of Hypnosis. A. A. Friedländer.—p. 581.
Vaginal Examination by Midwives. Gänsbauer.—p. 586.
Vaccination. Bonne.—p. 587.
Gastroscope and Rectoscope. F. Lindstedt.—p. 588.
"Erysipeloid." R. Rupprecht.—p. 590.
System for Research on Twin Pathology. Siemens.—p. 590.
Tetany and Spasmophilia. H. Curschmann.—p. 591.

Pathogenesis of Gastric Ulcer.—Mueller reviews the investigations of his school on the capillaries in patients with ulcer of the stomach. In every case there was some disharmony in the structure and function of the capillaries and the smallest arterioles and venules. This anomaly was distributed in irregular patches over the body. It was especially pronounced in the lesser curvature and pyloric region. This speaks for a vasoneurotic origin of gastric ulcers.

Capillaries of Lip in Gastric Ulcer.—Mayer-List continued the investigations on the capillaries of the mucosa of the

lower lip on 200 subjects. About 28 per cent. of them showed a regular distribution, while 29 per cent., who suffered from organic and vasomotor affections, had marked changes. All the twenty patients with gastric ulcer presented remarkable irregularities.

Serologic Split Products.—Lüttge and Mertz coagulate the serum in Abderhalden's reaction with alcohol. This extracts the cleavage products.

Color of Hair.—Mayr observed frequently different colors of single hairs in intermediary types between blonde and brunette. The depth of the color increases from the axillary hair to the beard, scalp, eyebrows and pubis. The two latter groups were frequently of an identical shade.

Zentralblatt für Gynäkologie, Leipzig

48: 785-832 (April 12) 1924

*Micromethod for Sedimentation Test. Linzenmeier and Raunert.—p. 786.
*Campaign to Prevent Criminal Abortion. T. Wyder.—p. 790.
Vagotonia of Pregnancy. Knaus.—p. 798. Idem. Loures.—p. 803.
Constitutional Types in Women. Kolde.—p. 805.
*Rectal Examination of Parturients. P. Theodor.—p. 807.

Micromethod for Estimation of Speed of Sedimentation of Red Blood Corpuscles.—Linzenmeier and Raunert give an illustration of their microsedimeter. It is not designed to replace the older apparatus, but merely supplements it, being especially indicated when, for any reason, the securing of more than a drop or two of blood is difficult.

Campaign to Prevent the Criminal Production of Miscarriage and Abortion.—Wyder discusses better methods of apprehending and securing judgments of conviction against professional abortionists, whether laymen, midwives or physicians.

Obstetric Rectal Examination.—While admitting that rectal examination of parturients is often indicated, Theodor regrets that in some instances physicians are using for rectal examination a rubber finger in place of rubber gloves. His investigations have convinced him that the danger of the unprotected fingers becoming infected and spreading infection is very great.

Zentralblatt für innere Medizin, Leipzig

45: 337-352 (May 3) 1924

*Nervous Disturbances After Hydrophobia Vaccination. K. Hajek.—p. 344.

Nervous Disturbances After Hydrophobia Vaccination.—Hajek describes a case of grave polyneuritis with slight central symptoms in a man who had received fifteen injections of diluted emulsion of cord after having been bitten by a rabid dog. Inoculations of the patient's saliva in dogs were negative. Therefore, it seems that the polyneuritis was due to the toxic effect of the vaccine in a predisposed man. He had previously had sciatica and neuritis of the brachial plexus.

Casopis lekaruv ceskych, Prague

63: 689-724 (May 3) 1924

Atrophy and Cirrhosis. E. Zeman.—p. 689.
*Motor Insufficiency of the Stomach. K. Klein.—p. 692.
*Complement Fixation in Rhinoscleroma. V. Tomasek.—p. 707.
*Encephalitic Parkinsonism. K. Henner and F. Baroch.—p. 709.

Treatment of Motor Insufficiency of the Stomach.—Klein had remarkable results in patients with grave motor insufficiency and dilatation of the stomach treated with lavages and a careful diet. The treatment should be tried for three weeks unless there are indications of cancer. He observed, however, one patient with cancer who gained 10 kg. when treated for an ulcer.

Complement Fixation in Rhinoscleroma.—Tomasek performed complement fixations with the serum from twenty-five patients with rhinoscleroma and twenty-three controls. The results were positive in 87.6 per cent. of the patients. Other encapsulated bacilli used as an antigen gave negative results.

Treatment of Encephalitic Parkinsonism.—Henner and Baroch injected intravenously the cerebrospinal fluid withdrawn from the patients. They do not confirm the favorable results claimed by Piticariu.

Acta Chirurgica Scandinavica, Stockholm

56: 497-570 (May 7) 1924

Torticollis. A. Krogius.—p. 497.
*Acute Septic Osteomyelitis. E. Hedlund.—p. 513.
Early Tuberculosis of the Kidney. M. Persson.—p. 525.
*Varicose Veins. C. Bertone.—p. 539.
*A Case of Embolectomy. E. Perman.—p. 555.
Striation of Muscles. P. Henriksen.—p. 559.

Acute Septic Osteomyelitis.—Hedlund reports more rapid healing and better results generally since he has been applying the Carrel-Dakin method of treating acute septic osteomyelitis of the long bones. Two of the twenty-one patients thus treated died, and it failed in four others.

Treatment of Varicose Veins.—Bertone aims to modify the circulation in the deeper veins. After bilateral ligation of the popliteal vein in the five cases he has treated by this means at Venice, there has been no recurrence of the varicose tendency during the two to fourteen years since the operation in four of the cases; in the fifth case there was recurrence in one leg the thirteenth year.

Embolectomy.—Perman reports the complete return of the normal circulation in the man, aged 46, after the embolus in the common iliac artery had been removed. It was reached through a 12 mm. incision in the femoral artery by retrograde probing, using a long thin flexible probe, the tip spirally twisted and capped with a tiny ball.

Hospitalstidende, Copenhagen

67: 257-272 (April 23) 1924

*Bleeding Gastric and Duodenal Ulcers. H. Strandgaard.—p. 257.
Disease of the Pituitary. E. Schmiegelow.—p. 264. Cont'd.

Treatment of Gastric and Duodenal Ulcers.—Strandgaard reiterates that transfusion of blood in cases of profuse hemorrhage from an ulcer not only improves the general condition, the pulse, blood pressure and hemoglobin percentage, but acts also on the hemorrhagic tendency, promoting coagulation and functioning. He describes six cases in which the benefit was prompt and striking. In a seventh case no improvement was observed, and cancer is probable.

Ugeskrift for Læger, Copenhagen

86: 383-398 (May 8) 1924

*Modification of Racial Characters. Pézard et al.—p. 383.
Some Tropical Dermatoses. V. Genner.—p. 385.
Carbon Monoxid Poisoning. J. Sørensen.—p. 391.
*Sterilization of Rubber Gloves. T. Schultz.—p. 391.

Modification of Race Characters.—By implantation of ovaries in roosters, Pézard. Sand and Caridroit induced changes in the plumage as pronounced as the differences between different races of poultry. The internal secretion of the ovary seems thus to have a race type determining function.

Sterilization of Rubber Gloves.—Schultz boils the gloves for twenty minutes in strong salt solution (250 gm. in 2 liters water) in an enameled vessel with a cover fitting over it. Fifteen years' experience with this method has been extremely satisfactory. The gloves keep soft and elastic and do not stretch.

CORRECTION

Splenectomy in Treatment of Hemorrhagic Conditions.—The abstract in THE JOURNAL, May 24, 1924, p. 1741, should read . . . "the sixth case of essential thrombopenia cured by splenectomy," instead of "case of hemophilia." The boy's history suggested hemophilia and the spontaneous rupture of the spleen compelled emergency splenectomy, without delay for examining the bleeding time and coagulation time and counting the blood platelets. The next day the platelets numbered 92,500, and the week after the splenectomy 855,000, but returned to normal range in a few months. The retrospective diagnosis was splenogenous hemolytic purpura, and the benefit from the operation ranked it the sixth case of successful splenectomy in this form of *blutungsbereitschaft*. In this form the bleeding time is protracted, but coagulation time is normal, and this excludes true hemophilia. The authors say that the spleen has evidently a hemolytic action but there may be some hormone influence on the bone marrow in addition, or still other factors. But removal of the spleen does away with the most important link in the chain, like thyroidectomy in exophthalmic goiter. In the case described, there has been no tendency to hemorrhage since the splenectomy, nearly a year to date.